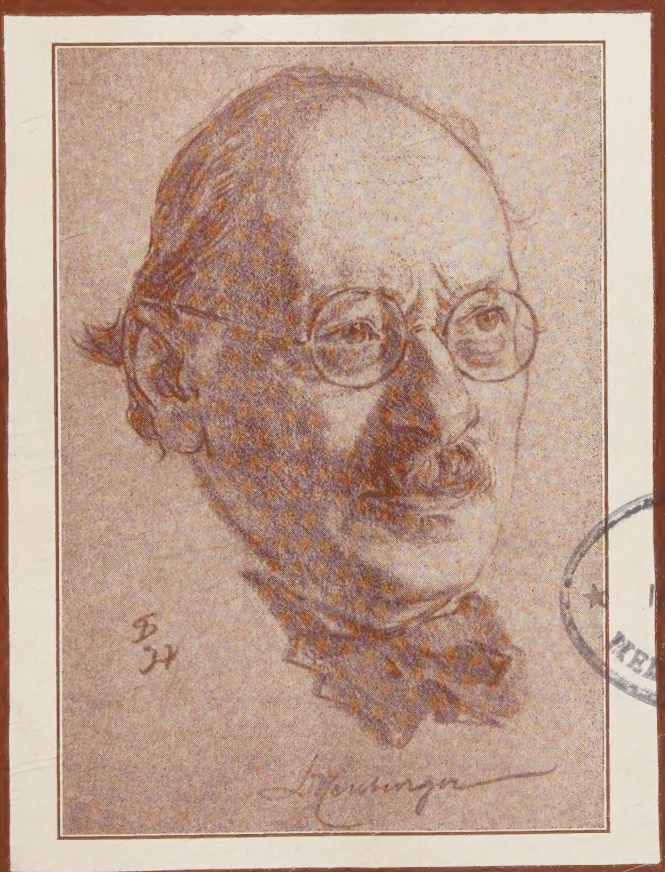
MEDICAL RECORD



December 1943: Neuburger Number

Vol. 156, No. 12

The Enchanted Ring . . .

Greatly prized among the Moors is a stone called **ain 1-horr.** *It is said that as long as a man wears this gem in a ring of gold he will beget no offspring.**

● An important phase of medical practice and public health programs today is instruction on child-spacing. When the physician advises deferment of pregnancy, modern methods enable him to make his counsel practicable. Ortho-Gynol Vaginal Jelly meets the most exacting requirements for a contraceptive preparation. It immobilizes sperm instantly on contact, is well tolerated in continued use, stable and uniform in its properties. Ortho-Gynol Vaginal Jelly is widely prescribed in doctors' offices and clinics . . . a tribute not only to its effectiveness but to its acceptability among patients.

*Himes, *Medical History of Contraception*

COPYRIGHT 1943, ORTHO PRODUCTS, INC., LINDEN, N. J.

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

ortho-gynol

VAGINAL JELLY

ACTIVE INGREDIENTS: RICINOLEIC ACID, BORIC ACID, OXYQUINOLINE SULFATE.

During and After Pregnancy

The maintenance and restoration of adequate hemoglobin levels in pregnancy, postpartum and lactation are of paramount importance. Precautionary measures to avoid deficiency anemias should include reliable iron medication. Thus, iron reserves needed by mother and child can be satisfactorily provided by the administration of specially prepared iron (easily assimilated ferrous sulphate—plain or with liver concentrate) incorporated in . . .

LOOK AT THE BLOOD

TRADE-MARK

Hematinic Plastules*

THE BOVININE COMPANY ☆ CHICAGO
DIVISION WYETH INCORPORATED

*Reg. U. S. Pat. Off. Copyright 1943 The Bovinine Company

The line of least resistance in vitamin therapy

Cal-C-Tose is the Roche five-vitamin, chocolate-flavored nutritive. It carries no suggestion of medication and is eagerly accepted by both children and adults, especially those who object to capsules or liquid preparations. Mixed with milk, Cal-C-Tose makes a delicious chocolate drink (hot or cold). Two servings per day provide over three times the daily adult minimum requirement of vitamin C plus generous quantities of vitamins A, B_1, B_2, and D.

HOFFMANN - LA ROCHE, INC., ROCHE PARK, NUTLEY, NEW JERSEY

CAL-C-TOSE 'ROCHE' THE PLEASANT WAY TO TAKE VITAMINS

MEDICAL RECORD

FORMERLY KNOWN AS THE MEDICAL JOURNAL AND RECORD

PUBLISHED MONTHLY BY

THE MEDICAL JOURNAL AND RECORD PUBLISHING CO., INC.

DECEMBER 1943

Max Neuburger Anniversary Number

Max Neuburger on His Seventy-Fifth Birthday
Solomon R. Kagan, Roxbury, Mass. 727

Max Neuburger
Arturo Castiglioni, New Haven, Conn. 729

Max Neuburger's Contributions to Medical History
Abraham Levinson, Chicago, Ill. 731

Difficulties Confronting the Medical Historian
Aldo Mieli, Sante Fé, Argentina 732

Max Neuburger, Historian, at Seventy-Five
Max Thorek, Chicago, Ill. 734

A Visit to Max Neuburger in Vienna
Isaac A. Abt, Chicago, Ill. 735

Max Neuburger
William LeFanu, London, England 736

Max Neuburger: An Appreciation
Sir Humphry Davy Rolleston, London, England 737

From the Editor
Gregory Stragnell, New York, N. Y. 738

To Max Neuburger on His Seventy-Fifth Birthday
Oscar Hirsch, Boston, Mass. 738

Max Neuburger, Valiant Scholar!
Hyman Morrison, Boston, Mass. 738

'Ware Medical Canon
Chauncey D. Leake, Galveston, Texas 739

Greetings to Dr. Neuburger
Richard Wagner, Boston, Mass. 739

(Continued on page 709)

VOL. 156, NO. 12
WHOLE NO. 2731

Entered as Second Class matter at the Post Office at Rutherford, N. J., under the Act of March 3, 1879. Office of Publication, 210 Orchard Street, East Rutherford, N. J. Editorial and Executive Offices, 215 Fourth Avenue, New York 3, N. Y.

SINGLE COPIES ..... FORTY CENTS
DOMESTIC YEARLY SUBSCRIPTIONS $4.00
FOREIGN YEARLY SUBSCRIPTIONS $4.75

Copyright, 1943, by The Medical Journal and Record Publishing Company, Inc.

Not Merely Vitamins

A BALANCED RATION OF ESSENTIAL NUTRIENTS

Ovaltine offers a wide range of therapeutic applicability, in the prevention as well as in the correction of nutritional deficiencies. Usually these subclinical states require more than merely the administration of vitamins.

Two or three glasses of this delicious food drink daily raise the nutritive value of virtually any dietary to optimum levels. Not only is it an excellent source of vitamins A and D and the B vitamins, but it also supplies abundant amounts of other essential nutrients—proteins and minerals—and food energy. It is a balanced food supplement augmenting the intake of practically all metabolic requisites.

Before and after surgery, during convalescence, pregnancy, and lactation; in illness calling for bland yet highly nutrient food; in the dietaries of children and the aged, and whenever the intake of nutritional essentials must be augmented, Ovaltine deserves first consideration. The Wander Company, 360 North Michigan Avenue, Chicago, Illinois.

Ovaltine

Three daily servings (1½ oz.) of Ovaltine provide:

	Dry Ovaltine	Ovaltine with milk*		Dry Ovaltine	Ovaltine with milk*
PROTEIN	6.0 Gm.	31.2 Gm.	VITAMIN A	1500 I.U.	2953 I.U.
CARBOHYDRATE	30.0 Gm.	62.43 Gm.	VITAMIN D	405 I.U.	480 I.U.
FAT	2.8 Gm.	29.34 Gm.	THIAMINE	.9 mg.	1.296 mg.
CALCIUM	.25 Gm.	1.104 Gm.	RIBOFLAVIN	.25 mg.	1.278 mg.
PHOSPHORUS	.25 Gm.	.903 Gm.	NIACIN	5.0 mg.	6.9 mg.
IRON	10.5 mg.	11.94 mg.	COPPER	.5 mg.	.5 mg.

*Each serving made with 8 oz. milk; based on average reported values for milk.

Max Neuburger
Leo Hess, Brookline, Mass. 739

Neuburger's Outline of A History of Cardiology
Linn J. Boyd, New York, N. Y. 740

The History of Pediatrics in Vienna
Robert Rosenthal, St. Paul, Minn. 746

Ludwig Frankl, Viennese Physician and Philosopher
Harry A. Savitz, Boston, Mass. 751

The Vienna Medical School in Pre-Revolution Years
W. Schweisheimer, New Rochelle, N. Y. 710

Max Neuburger's Letters
Solomon R. Kagan, Roxbury, Mass. 724

BOOK REVIEW
***Influence of the Vienna School on British Medicine*, by Max Neuburger** 753

OUR CONTRIBUTORS 754

Winter time is the season of throat affections. Many physicians have found Thantis Lozenges to be effective in relieving throat soreness and irritation, because they are antiseptic and anesthetic for the mucous membranes of the throat and mouth.

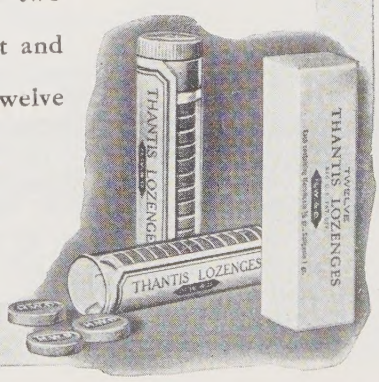
Thantis Lozenges

contain Merodicein (H. W. & D. Brand of Diiodooxymercuriresorcinsulfonphthalein-sodium), 1/8 grain, and Saligenin (Orthohydroxybenzylalcohol, H. W. & D.), 1 grain. They dissolve slowly, permitting prolonged medication with the two active ingredients.

Thantis Lozenges are effective, convenient and economical.

Thantis Lozenges are supplied in vials of twelve Lozenges each.

HYNSON, WESTCOTT & DUNNING, INC.
Baltimore, Maryland



A SYNONYM
for
GENTLE SEDATION:

Peacock's
BROMIDES

Here is multiple defense against insomnia, the climacteric, the phobias of impending disaster, the neuroses of high powered living, and most of the symptoms due to increased irritability of the autonomic or involuntary nervous system.

Each fluid dram (teaspoonful) is standardized to contain fifteen (15) grains.

OD PEACOCK SULTAN CO.
Pharmaceutical Chemists
4500 PARKVIEW ST. LOUIS, MO.
OPS COMPANY

The Vienna Medical School in Pre-Revolution Years

Max Neuburger's Studies on an Important Epoch

W. SCHWEISHEIMER
New Rochelle, N. Y.

The Vienna Medical School, in the course of its history, had two epochs of highest fame. The first Vienna School, growing up under Gerard van Swieten's reforming activity, starting about 1750, was highlighted by the names of van Swieten's successor, Anton de Haen, Stoll, Peter Frank, Valentin von Hildenbrand, and Leopold Auenbrugger, the discoverer of percussion. The second of these famous epochs, with roots in Rokitansky's, Skoda's and their collaborators' creative activities, reached its zenith about 1850 and lasted for several decades.

The period between the first and second Vienna medical schools is sometimes called, somewhat disdainfully, an era of complete standstill. This is not the actual truth by far, as important personalities appeared during this interregnum, and important discoveries in medicine were started. This particular period has been thoroughly explored in the constructive studies of Max Neuburger. His extensive studies give a clear picture of a comparatively little known, but extremely interesting cultural and medical epoch. Neuburger called it the *Wiener Medizinische Schule im Vormärz*—and this means the medical school in Vienna during the decades preceding the March revolution of 1848—decades of restless longing for freedom and important cultural achievements in Europe.

The following paragraphs give, in translation, some interesting excerpts from Neuburger's fundamental studies of developments in medical Vienna of the Biedermeier and Vormärz epochs.

"They Told a Lie to Your Majesty"

Lucas Johann Boër (originally Boogers), born 1751, author of a famous *Naturalis medicina obstetricia*, studied medicine in Würzburg and Vienna. He became surgeon at the orphan asylum in 1784 and gained the favor of Emperor Joseph II. Since 1808 he was ordinarius for practical obstetrics.

The emperor liked Boër for his frankness. He used to visit him occasionally in the foundling-hospital and inquired about the children. Before the emperor had shown his interest in the youngest generation, the uncleanliness among these foundling babies was supposedly great and this was said to have been the principal cause of the high mortality rate.

One day the emperor is reported to have addressed Boër: "Why, Boogers, almost all of your children die. In Florence and Venice I was told that hardly twenty out of a hundred babies in their foundling hospitals die!" Boër replied: "I have no doubt that your Majesty was told so by the Italians, because your Majesty is telling me so. But there is no doubt either that they told a lie to your Majesty."

As main causes for the high mortality of the orphan babies, Boër considered physical and moral suffering, misery and poverty of helpless mothers, want of proper food and lack of proper care for the newborn babies. He complained especially that these babies were fed in an artificial way and had to do without the breast-feeding of a mother or wet-nurse.

(Continued on page 712)

On the trail

WAY back in the sixties, when the West was young and wild, William R. Warner's drugs were making friends with the medical profession. Country doctors jogged out to lonely farms and ranches with their saddlebags of Warner medicinals ready for use.

Medicine and pharmacy have come a long way from those early days and so has the house of William R. Warner & Co., Inc., whose products are now known and prescribed by medical men all over the world, in fulfillment of the early chosen motto, "Omnis Orbis". Now, as then, the house of Warner remains true to the spirit of the pioneers in its endeavor to help advance the frontiers of pharmaceutical science by continuing the search for still better and safer means of preventing and controlling human disease.

OMNIS ORBIS
WARNER
ESTABLISHED 1856

WILLIAM R. WARNER & CO., INC.

113 West 18th St., New York, N. Y. • 404 South 4th St., St. Louis, Mo.

BRANCHES AND AGENCIES IN SEVENTY-FIVE FOREIGN COUNTRIES

Semmelweis, Saver of Mothers

A young Hungarian, Ignaz Philipp Semmelweis, assistant to Klein, professor of obstetrics, revealed in 1847 the etiology and prophylaxis of puerperal sepsis. The pathologist, Kolletschka, had died after an infection received during an autopsy. Semmelweis recognized the identity of the infection in the autopsy results in Kolletschka's body and of the bodies of women who had died from puerperal sepsis.

The mortality in Klein's obstetrical hospital was much higher than in other hospitals, because the students examined the women just after they had finished an autopsy. It was general custom for operators, their assistants and students to come from autopsies or the dissecting-room and, without disinfecting their hands, examine patients and parturient women.

Semmelweis demanded that before every examination everyone, whether student or assistant or professor, wash his hands in a watery solution of chloride of lime. With this order he created much trouble for himself, but he had remarkable results at once: the mortality rate in the hospital decreased from eighteen percent to 2.45 percent in short time. Despite these obvious improvements Klein had no understanding of his assistant's vitally important research work. He even went so far as to cause real trouble for Semmelweis, while other leading men of the Vienna school, such as Skoda and the dermatologist, Ferdinand Hebra, tried to support him.

Murderer of the Archduchess

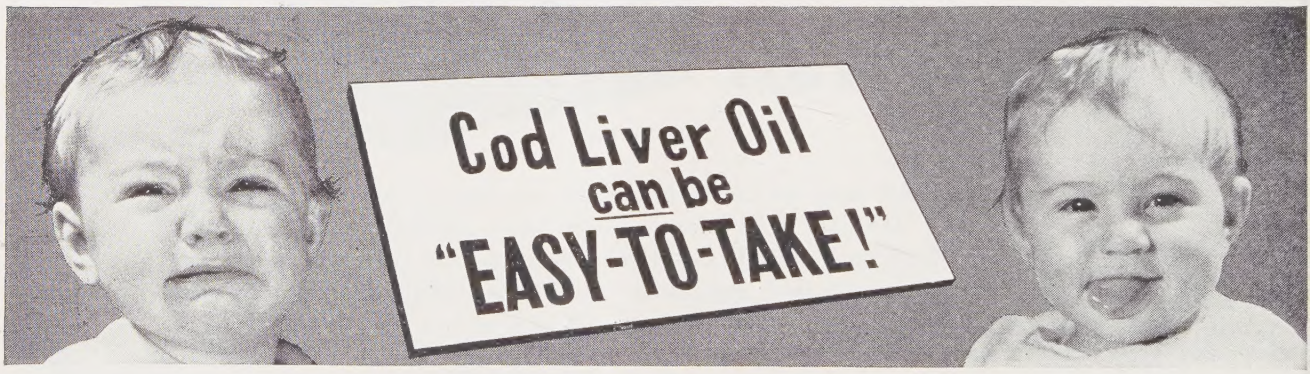
Boër had to go through an exciting experience which proved of consequence during his entire life. He was asked (or rather ordered) by Emperor Joseph to take care of the Archduchess Elizabeth who was expecting a child. She was the wife of the heir-apparent of the Empire, Archduke and later Emperor Franz I.

When Boër saw the archduchess for the first time, serious complications had already set in. She died after the birth under circumstances indicating a putrid sepsis. The emperor said: "Boër, I am very sorry for you for the misfortune which befell both of us. I, for my part, will not bear it any more for a long time, but this unhappy accident is a real misfortune for you, for your whole future life. Believe me, I know my public. I actually wish I had not asked you to attend this delivery, and all I can do for you is to confirm your hitherto existing salaries, privileges and pensions, for you will be removed from Court as soon as I will have closed my eyes". Two days later Emperor Joseph died.

As the emperor had foreseen, Boër was reproached all over the whole town for his supposed negligence and ignorance, in all social spheres, in all inns and coffeehouses. Everywhere he was the object of the meanest invectives, he was called the murderer of the archduchess, and some went so far as to suspect him of political motives in the "murder" of the archduchess. In the magazine, *Neues deutsches Museum* (1790), the unhappy accident was explained with "extreme negligence", and Boër was called a young, much-travelled and possibly skilful man who had had very little experience in obstetrical cases outside his hospital.

Another though lesser reproach was that Boër in his clinical lectures used the common Viennese dialect. However, he was never ashamed to use the language of the common people. He pointed out that every

(*Continued on page* 714)



Physicians and Mothers find Nason's PALATABLE Cod Liver Oil "Easy-to-Give"

Physicians find Nason's Palatable Cod Liver Oil assures an adequate intake of Vitamins A and D* with minimum dosage. Its pleasant taste makes easy, for parent and child, the necessary *continuous* administration. Mothers appreciate this, especially if they remember "fighting" old-time "cod-liver" oil in childhood. Nason's Palatable Cod Liver Oil is made from strictly fresh cod livers; oil thus extracted, like any fresh animal fat such as butter, is naturally fresh-tasting and palatable. Addition of less than ½ of 1% of essential oils (mildly mint-flavored) further improves the agreeable taste. Thus, children find it "Easy-to-Take."

Prescribe Nason's Palatable *Cod Liver Oil by its full name — your patient is then assured of high vitamin content, low comparative cost and ease of administration.*

***GUARANTEED HIGH VITAMIN POTENCY** . . . over 50% above the minimum Vitamin A and D standards U.S.P. XII and N.N.R. Council on Pharmacy and Chemistry, A.M.A. One teaspoonful (5cc.) of Nason's Palatable Cod Liver Oil contains 6,440 A units and 690 D units (U.S.P. XII).

TAILBY-NASON COMPANY • *Kendall Square Station* • Boston 42, Mass.

TRADE MARK SPHINX

Nason's *Palatable* **Cod Liver Oil**

Rational Therapy . . . The combined use of an estrogen and a sedative is a logical method of managing the menopausal patient. Sedation and hormonal medication, together, provide more complete control of the complex symptomatology. Further, the sedative component tends to eliminate the by-effects associated, at times, with synthetic estrogen therapy.

Hexital contains hexestrol (the new synthetic estrogen of low toxicity), and phenobarbital. Treatment of the menopause with Hexital is effective, convenient, economical, and relatively free from nausea and other by-effects. Hexital tablets contain 3 mg. hexestrol and 20 mg. phenobarbital. Average daily dosage: 1 tablet, preferably taken at night.

ORTHO PRODUCTS, INC. • LINDEN, N. J.

Literature available on request

hexital

(HEXESTROL-PHENOBARBITAL)

German understood the Viennese language, and that this particular dialect was simple, clear, and understandable to anybody.

Johann Peter Frank—Treating Napoleon

Johann Peter Frank, protagonist of social hygiene, was director of the Vienna Allgemeines Krankenhaus from 1795 to 1804. He had incurred the enmity of the powerful court physician of the emperor, Andreas von Stifft, and was compelled to leave Vienna. Frank went to St. Petersburg where he soon became court physician to the Czar. In 1808 he returned to Vienna where he had an extended consiliary practice.

When Napoleon came to Vienna in 1809, he asked Frank—who had an international reputation—for consultation. Although Frank was suffering from an attack of gout, which made him all but immovable, he had to leave immediately to see the emperor who was sick. He met first the emperor's permanent physician, Ywan, and asked him to give him some details of the emperor's constitution and ways of living. Is it true that the emperor has seven to eight cups of strong black coffee a day?

He found Napoleon in his bath and was shown a kind of psoriasis on the emperor's back. Frank asked him whether he had spit blood while he was in Italy. This was categorically denied by Napoleon, who mentioned that there were many rumors concerning him and his health that were not true; but, he added, his chest had been weak. Napoleon asked Frank to accompany him to France which Frank declined to do. Later he met Jean Nicolas Corvisart, famous Paris internist; he was the first to call himself heart specialist, introduced the term carditis and was one of the first users of Auenbrugger's percussion for diagnosing disorders in the chest. Corvisart introduced percussion to general use by the medical profession.

He was, besides Barthez, one of Napoleon's personal physicians and greatly worried lest Frank would come to Paris. "Dites-moi", he asked him bluntly when they met in Vienna, "voulez-vous effectivement entrer au service de la France, ou non?" Frank is said to have replied: "Vous ne connaissez pas le vieu Docteur Frank; vous êtes premier Médicin de l'Empereur avec 30,000 francs; je suis Conseiller d'état en Russie et j'ai eu à Petersbourg 42,000 roubles." He was satisfied and did not apply for service in France.

Vienna General Hospital

The Vienna General Hospital (Allgemeines Krankenhaus) was the cradle of numerous generations of doctors up to the most recent time. Hermann Friedrich Kilian, later professor of obstetrics in Bonn, gave an appreciative description of this venerable place of medical education as he found it in 1821. It is one of the "most colossal" hospitals in German countries, containing more than two thousand beds in some one hundred and eleven rooms. Its comfortable appearance is the more consoling if compared with those "black dens of woe and misery" such as may be found in Paris and which ironically—are called hospitals.

We may recognize, he continues, with just pride that the Vienna General Hospital is administered excellently in all its parts and departments, and that the highest values of a hospital are united there: air, light

(Continued on page 716)

IN DISORDERS OF GASTRIC FUNCTION

Gastron

REG. U.S. PAT. OFF.

GASTRON is an original extract of the organic and inorganic constituents of the entire mucosa of the hog-stomach, including the pylorus. The acidified and aromatized extract is incorporated in an aqueous-glycerin-propylene glycol menstruum which preserves the enzymatic activity. The preparation contains no alcohol. It is accurately standardized by assay.

Gastron is indicated as replacement therapy in atrophic gastritis, and as an aid in the treatment of chronic gastritis. It is of value as adjunctive treatment in the anemias and in certain gastric deficiencies associated with convalescence and old age. It is worthy of trial in the nausea and vomiting of pregnancy.

GASTRON WITH IRON is available also for prescription use

ORIGINATED & MADE BY FAIRCHILD BROS. & FOSTER NEW YORK 13, N. Y.

B COMPLEX *plus* IRON *plus* LIVER

Design for Hematinic Therapy

EFFECTIVE COMPOSITION: Liver residue . . . 3 gr., Ferrous Sulphate, Exsiccated (U.S.P.)... 3 gr., Thiamine HC1 . . . 1 mg., Riboflavin . . . 0.66 mg. and Niacin . . . 10 mg.

ENDOGLOBIN

REG. U.S. PAT. OFF.

Tablets

Each tablet provides the raw materials universally accepted for hemoglobin regeneration, plus the raw materials for the biochemical mechanism in which hemoglobin functions.

CONVENIENCE: Easy to take . . . pleasantly flavored for chewing or swallowing.

ECONOMICAL: Budget-priced to permit protracted medication, usually required in hematinic therapy . . . cost the patient only a few cents a day.

DOSAGE: One or two tablets, three times a day, after meals.

Available, at prescription pharmacies, in bottles of 40 and 100 tablets.

Samples and literature sent to physicians upon request

ENDO PRODUCTS, INC.

RICHMOND HILL NEW YORK

ENDO

ENDOGLOBIN

REG. U.S. PAT. OFF.

Tablets

and space. The patients in this hospital are cared for in a really humanitarian and devoted spirit. Kilian expresses the ardent desire that there should be more hospitals of this standard in German countries.

The Lunatic Asylum, however, is heavily reprimanded for its uselessness and unsuitability.

Treatment of Syphilis

Wilhelm Horn, physician and son of the Berlin professor of psychiatry, Ernst Horn, in his *Voyage through Germany, Hungary, etc.*, (1831) gives a 165-page description of medical Vienna. It is not easy, he writes, to gain access to the syphilitic wards of the General Hospital. Mr. Andreas Belletzky, dermatologist and vice-director of the hospital, does not like anyone (except himself and his assistants) to see the syphilitic department. "This was the only time that, despite many recommendations, the visit to a ward was made extremely difficult for me—that to the female syphilitics was even denied to me."

There are, on the average, seventy men in the ward, and some hundred and twenty women. The ailments treated were mostly called chancre (phimosis, paraphimosis, bubo, rarely gonorrhea. Buboes, which do not open quickly, are not cut but cauterized. As for the use of mercury, sublimate in doses of one-tenth to one grain a day is given for general syphilis. In all new cases a nonmercurial treatment is first tried, i.e., for gonorrhea washings; then, injections of some mild medicaments. After the disappearance of the acute inflammation, an aqueous solution of the subacetate of lead is used. Simultaneously with the treatment, the diet is restricted.

Chancre is treated with several kinds of poultices and protection against new infection by the use of charpie. Not until this kind of treatment has been tried for weeks will calomel be used. Under Hildenbrand, whose memory is not the best everywhere, thirty to forty syphilitic patients are said to have died yearly, both from their disease and improper treatment. Belletzky boasts that such an accident would not happen to him.

Prohibition of Homeopathy

In 1819 the practice of homeopathy was prohibited in all states of the empire; this law was valid until 1832. The most ardent Austrian apostle of Hahnemann was Dr. Matthias Marenzeller, a medical officer in the Austrian army. He had started his homeopathic practice in Prague and later went to Vienna where he had so many patients that he left the army and dedicated himself exclusively to homeopathic treatment.

Marenzeller had friends and admirers in the highest circles, Emperor Franz was well disposed toward him, and he became personal physician to Archduke Johann. He succeeded finally in effecting the repeal of the law prohibiting the practice of homeopathy over the most vehement opposition by the Medical Faculty of the University of Vienna. Later, in 1840, he received permission to found an association of homeopathic physicians.

Dead Child in the Anatomist's Cooking Pot

The famous anatomist, Joseph Hyrtl (prosector in Vienna in 1833) tells a thrilling episode from his early studies with anatomist Alois Michael Mayer in Vienna.

(*Continued on page 718*)

TO SAVE YOUR TIME, DOCTOR
MENNEN ANTISEPTIC OIL
By helping to keep the infant free of many rashes and skin infections, Mennen Antiseptic Oil may often save avoidable calls. It is the only widely used baby oil that does all these three things:
• lubricates skin
• gives antiseptic protection
• provides analgesic relief
Gentlest on infants' skin
MENNEN ANTISEPTIC OIL

Fertility . . .

• Fertility, the ability to reproduce, is common to all living things. A complex process, reproduction is generally facilitated by a combination of most fortuitous circumstances. At times, however, as in human "sterility", anomalous factors occur to thwart Nature's intended purpose.

MacLeod and Hotchkiss* have recently shown that some particularly confusing instances of clinical infertility can be attributed to sub-normal sperm migration, possibly resulting from incompatible genital secretions. In cases of this type, fertility may be restored through the use of a physiologic glucose douche. Glucose, metabolized by the sperm, acts therapeutically by providing nutrient for sperm motility.

Nutri-sal, a physiologic glucose douche powder, is recommended in the treatment of infertility, where none of the well-defined factors, such as anovulation, unpatent tubes, endocrine dyscrasias, etc., are present. It may also be employed as a therapeutic adjuvant during the routine investigation of sterility, since it is safe and convenient to use, and may obviate the necessity for some of the more complex analytical procedures.

*AMER. J. OBST. & GYN., SEP. '43

Nutri-Sal

FOR USE IN SELECTED CASES OF INFERTILITY

ORTHO PRODUCTS, INC., LINDEN, N. J.

The young student had taken home from the dissecting-room the body of a dead newborn child to try some special injections. His own room could not be heated, and he, therefore, put the body into a pot on the stove where his mother was preparing dinner.

The mother did not know about this strange addition to her pots, and when she took the lid off the pot, she saw the hard-boiled face of a child. She screamed and fainted, pot and child fell to the ground. Hyrtl had sufficient presence of mind to take the body and return it hurriedly to the university.

It was winter, and he fell on the slippery ice on the street. A policeman helped him get up and discovered the sinister burden which Hyrtl had hidden underneath his coat. The vainly protesting student was immediately arrested and suspected of having murdered the baby. Hyrtl was positive that he had bought the corpus delicti for two florins from the anatomy assistant, Kasper. He was taken by two policemen to Kasper, but Kasper was so drunk that it was impossible to get any information from him. At his request, the despairing student was then taken to Professor Mayer who, on seeing and recognizing the special red ribbon on the umbilical cord, was able at once to diagnose that the body had been taken from the foundling hospital. Hyrtl was freed on Mayer's defense.

Rokitansky—Pathologist

With Carl Rokitansky new life entered the field of pathological anatomy. He became ordinarius in Vienna in 1884. Foreign doctors in increasing numbers from year to year, came to study with him. Carl August Wunderlich, later professor of internal medicine in Leipzig, said in his study, *Vienna and Paris* (1841), that new things could be seen and learned in Vienna which were looked for in vain in other places. Wunderlich was the first to recognize that the research work of Rokitansky and his fellow-pathologists gave a new turn to medical thinking in German countries and that the younger Vienna medical school was based on his new conception of human pathology. Rokitansky's *Handbuch der pathologischen Anatomie,* published in Vienna in 1841, immediately brought him fame and recognition all over Europe.

The Dublin physician and scientist, Sir William Robert Willis Wilde, saw Rokitansky's activity in 1840 and 1841. In his voluminous guide-book, *Austria,* he gave a guide to the hospitals and sanatory establishments of Vienna. It was Rokitansky's private course that more particularly demanded the foreigner's attention. In this he had several classes during the day, and from eight to twelve persons in each class. Those attending this course were daily required in their turn to perform an autopsy in the dead-house—to describe the morbid and healthy appearances they met with in each cavity or tissue—and answer the questions of the professor on the subject. They were then conducted to the museum, where Rokitansky explained the preparations systematically.

In contrast with other pathologists, Rokitansky did not engage in the study or treatment of disease during life; he was not a practical physician, and seldom saw one of the many hundreds of patients whose bodies he dissected. This has been loudly denounced by many who said that here morbid anatomy had completely usurped the place of pathology, but though

(Continued on page 722)

Before the Patient Becomes Seriously Ill

The use of GRAY'S COMPOUND will save valuable time and effort in the restoration of your patient to his normal health.

Gray's Compound

stimulates the appetite and aids in the assimilation of nourishment. If the patient is "run down" from overwork, worry, seasonal colds and coughs, or suffers from the vague symptoms of old age and diminishing vitality, GRAY'S COMPOUND is usually indicated, and is a useful adjunct to such other medications as the case may indicate.

The active ingredients are: Gentian, Dandelion, Wine, Glycerine, Phosphoric Acid, Cardamom Comp. and Sugars.

THE PURDUE FREDERICK COMPANY

(Also Compounders of Hyperol, a Utero-Ovarian Tonic)

135 Christopher Street **New York 14, N. Y.**

*Nupercainal**

When discomfort from minor burns or abrasions keeps your patients from work or restful sleep, use ***NUPERCAINAL.*** This effective anesthetic ointment provides quick relief from pain in the treatment of many everyday accidents. It is also of value in the control of pruritis of the skin and mucous membrane, it provides lasting symptomatic relief of dry eczema, chapped and roughened skin.

NUPERCAINAL does not contain cocaine or any other narcotic drug. It has a prompt and prolonged anesthetic action.

One-ounce tubes • One-pound jars

*Trade Mark Reg. U. S. Pat. Off. Word "Nupercainal" identifies the product as containing "Nupercaine" (alpha-butyloxycinchoninic acid-gamma-diethylethylenediamide) in lanolin and petrolatum, an ointment of Ciba's manufacture.

CIBA *Pharmaceutical Products, Inc.*
SUMMIT, NEW JERSEY

Geriatrics

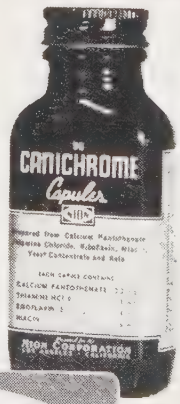
INVOLUTIONAL—Symptoms of advancing age are associated with a decreasing ability to utilize oxygen.

OXYGEN UPTAKE is said to be increased by pantothenic acid, riboflavin and the other factors of the Vitamin B Complex.

Canichrome Capules

THREE CAPULES DAILY PROVIDE:

Calcium pantothenate	10 mg.
Thiamin chloride	3 mg.
Riboflavin	3 mg.
Niacin	15 mg.



Available in packages of 90—a month's supply. Additional information and samples on request.

NION

NION CORPORATION LOS ANGELES 38, CALIFORNIA

WINTER *and* PSORIASIS

BEFORE USE OF RIASOL

BEFORE USE OF RIASOL

AFTER USE OF RIASOL

In the great majority of cases, psoriatic lesions become worse in winter. Scales and crusts increase and patches spread unless vigorous treatment is maintained.

The continued use of effective RIASOL is especially important during the winter months. Clinical tests have shown that RIASOL works *faster*, is *safer* and gives *more complete* relief from ugly psoriatic lesions. Regardless of season, treatment should be continued until the last trace has been eliminated, thereby greatly minimizing the chances of recurrence.

RIASOL is the distinctive formula containing 0.45% mercury chemically combined with soaps, 0.5% phenol and 0.75% cresol in an oily emulsified liquid. It is non-staining, easy to apply and requires no bandages.

AFTER USE OF RIASOL

For best results, RIASOL should be applied once daily, preferably before retiring, after bathing and thoroughly drying the skin.

Available at all pharmacies or direct in bottles of 4 and 8 fluid ounces. Advertised to the medical profession only. For professional literature and generous clinical package, mail coupon today.

MAIL THIS COUPON TODAY AND TRY RIASOL ON YOUR NEXT PSORIATIC CASE

SHIELD LABORATORIES
8751 Grand River Ave., Detroit 4, Mich.

MR-12

Please send me professional literature and generous clinical package of Riasol.

M.D.

Street

City Zone State

Druggist Address

RIASOL FOR PSORIASIS

it presented an anomaly peculiar to this school, it undoubtedly possessed many advantages, according to Wunderlich. Rokitansky taught general pathology and morbid anatomy (unconnected with, and unobstructed by, either diagnosis or theory) solely from the changes observable after death, and the solid grounds of observation and experience. As a writer, Rokitansky was much admired. He was later regarded as the leader of the young school of Vienna.

Treatment of Cholera

The spread of epidemic cholera was often prevented with the help of elaborate instructions to the medical authorities. First place in the treatment of cholera was given to blood-letting and the use of leeches. The blood-letting was supposed to be ample, one to one-and-a-half pounds or even more, but only during the earlier periods of the disease, not in the later stages of extreme weakness. Further recommended were warm decoctions, washings and poultices, skin irritants, such as mustard poultice, and the use of boiling hot water, or, if feasible, the hot iron.

Other medicaments used for the treatment of the dreaded disease were mercury in rather heroic doses, fifteen or twenty or even thirty grains in a short time, and opium preparations, particularly laudanum. The use of heat was recommended. An official prescription recommended ten to twenty grains of calomel with sugar and gum arabic in the form of powder; half an hour later forty to fifty drops of laudanum; this was repeated after two or three hours; half the doses for children. The tormenting thirst was quenched with decoctions of rice or barley or tea from camomile flowers.

Josef Skoda

Skoda, author of the epochal *Treatise on Auscultation and Percussion* (1839), was *Sekundararzt* (assistant physician) in the General Hospital since 1836. His studies at first met with more scorn than recognition from the leading clinicians of his time. The management of the General Hospital went so far as to transfer him to the department for mental diseases. But primarius J. Ratter favored him and gave him the opportunity for continuing his studies.

In 1839, the founder of modern physical diagnostics left the General Hospital. Fortunately his friends and admirers succeeded in inducing Baron von Türkheim, referee in medical matters at the imperial Court, to create a special clinique for diseases of the chest for Skoda, starting with forty beds.

When Sir William Robert Wilde saw Skoda's private clinic in 1840-41, he called it "perhaps the best school for acquiring a knowledge of the diagnosis of such affections." It was purely a stethoscope clinic, and solely for patients laboring under acute and chronic diseases of the chest. As an auscultator, Dr. Skoda possessed an unrivaled reputation, and certainly his diagnosis of heart and lung affections was astonishingly correct. It is entirely in this latter branch of knowledge, Wilde reports, that this clinic is so remarkable; for the treatment pursued there has in it nothing peculiar except that it is by no means good. It is purely antiphlogistic, consisting of blood-letting, leeching, and blistering, with the use of a few simples —such as tartarized antimony and the tincture of digitalis, administered in large doses. In pleuritic effusion

(*Continued on page 724*)

Kalak
TRADE MARK REG. U.S. PAT. OFF.

KALAK has been on the market as a pharmaceutical preparation for a generation and has found uses in regulation of water balance, relief from nausea and as a medium for dispensing drugs irritating to the stomach. It is in use in regulating the reaction of urine in sulfa medication. Write for the color chart and indicator papers sent gratis for urine pH.

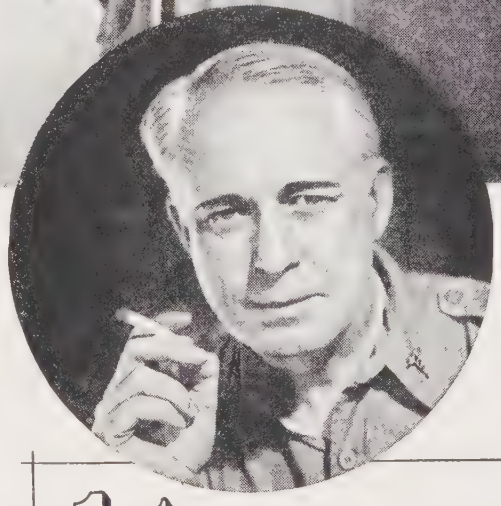
Address Department MR 123

KALAK WATER CO. of NEW YORK, INC.
30 Rockefeller Plaza New York 20, N. Y.

SURGERY UNDER SIEGE!

Steady hands, unwavering eyes . . . he needs them now. Never mind the bombs and shrapnel. Every case an "emergency" . . . an endless strain, a withering grind. But today's army field surgeon can take it. Like the men at the guns he seldom relaxes, but when he does, you can be sure he appreciates a cheering smoke.

Add to his cheer. Send a carton of Camels . . . a token of your personal appreciation for his sacrifices. Remember—Camel is first choice in the armed forces* . . . for mildness, better taste. See your dealer today.



1st in the Service

*With men in the Army, Navy, Marine Corps, and Coast Guard, the favorite cigarette is Camel. (Based on actual sales records.)

Camel

costlier tobaccos

New reprint available on cigarette research—Archives of Otolaryngology, March, 1943, pp. 404-410. Camel Cigarettes, Medical Relations Division, One Pershing Square, New York 17, N. Y.

he practised paracentesis much more frequently than any other physician, and did so even in acute cases; for he maintained that it must be performed early if at all, otherwise the lung having become collapsed and shrivelled up by the long-continued pressure of the fluid, would not again expand. He also punctured the pericardium several times and with varying degrees of success.

In his lectures Skoda also "performed many curious physical experiments, to explain the different sounds in the chest, both normal and diseased; these as well as the peculiarity of his opinions will be found in his work, *Abhandlung über Perkussion and Auskultation*".

It was remarkable that Skoda, in common with the other physicians and teachers of the General Hospital, had very little practice in Vienna. On the other hand, the most eminent practitioners in that city were quite unconnected with hospitals.

Max Neuburger's Letters

SOLOMON R. KAGAN
Boston, Mass.

Selected letters written by eminent scientists have, as a rule, a certain historical, biographical, or literary value. They may contain interesting historical or scientific data; they may be documents which, as perhaps no others, reveal the true character of the men who wrote them; and, finally, they may be literary masterpieces. The letters presented here reflect the personality of Professor Neuburger like a mirror. They show him to be a man of modest nature, kindly and sincere, and with broad vision. Their style and content correspond directly to the outstanding characteristics of Neuburger, the philosophical medicohistorian.

These selected letters cover a period of twenty-four years (1919-1943). They are addressed to the late Colonel Fielding H. Garrison[1] of the Army Medical Library, Washington, D. C., to Dr. Solomon R. Kagan, of Boston, Mass.; and to Dr. Robert Rosenthal, of St. Paul, Minn.

Letters Addressed to Fielding H. Garrison

I

Dr. F. H. Garrison
Washington, D. C.

September 1919

Dear Sir:

In reply to your kind communication of June 12th I take the liberty of announcing that the specimens of the *Index Medicus* including the war supplement have not arrived.

I shall send you some of my recent publications. Your excellent *Introduction to the History of Medicine* is my favorite book. I am reading it nearly every day.

With assurance of respect and devotion, I am,

Yours very truly,
M. Neuburger

II

Vienna, January 27, 1920

Dear Doctor Garrison:

I received your kind letter of January 7th, and I am very glad to hear that you will do so much in my favor. Many thanks for your great kindness. I need hardly to say that I would be very proud of the membership you wrote about in your letter, but I scarcely deserve this great honor.

With best regards,

Very sincerely yours,
Max Neuburger

[1]I have selected ten letters from Garrison's unpublished volumes of letters which I have in my possession.

III

Feb. 17, 1920

My Dear Doctor:

I received your letter of January 26th and also the *Index Medicus*, vol. 27, nos. 10 and 11 (Oct.-Nov.). I am exceedingly pleased with your notice concerning the Medical History Society of Chicago. In these dreadful times your letters are like sunshine for my soul. I owe very much to your kindness and I am proud of the honorary membership in the Society. Many thanks for your proposal, I am obliged to you for your friendship. With great interest I am reading your obituary of the late Sir William Osler. He was really a great physician, indeed, a man of the greatest knowledge. I did not know that upon your hint my *History of Medicine* was translated into English. Many thanks for your recommendations! It was a high success that my work was translated and I am very sorry that I could not continue my scientific work in consequence of the war and other misfortunes.

Very sincerely yours,
Max Neuburger

IV

April 7, 1920

My dear Doctor Garrison:

I hope you received my last letter and a copy of my book, *Josephus Flavius* and a photograph of myself. Now in reply to your kind letter of March 14, I thank you first of all for the note from the late Sir William Osler. I am proud that this great personality ordered the translation of my history of medicine, but I did not know that this was done at your suggestion. I know how much I owe you. Since January, I have been working on the history of the Renaissance, and hope I can bring this chapter to completion during this year.

With greatest interest I learned that you will prepare the third edition of your excellent *History of Medicine*. I congratulate you on this extraordinary success, and indeed merited. I did not see *the second edition*, as it was published during the dreadful war... I shall be very glad to receive a copy of your history of pediatrics. I am sure that such a work especially when well illustrated will be much appreciated. I am very anxious to study it. Please kindly send as soon as possible a copy of your biography of the founder of the Surgeon General's Library, the late Dr. Billings.

In relation to the Josephinum, I hope that I shall get some rooms in this splendid old house and the control of the rich historical library of medical literature. In the Josephinum there is also the famous collection of anatomical wax figures (Fontana) dating from the time of the Emperor Joseph II.

I am very happy to see that you value my booklet, *The Prehistory of Antitoxic Therapy*, and I should be very proud if you would undertake an English translation; in this case I would prepare a new edition with additions and corrections. I received notification from Dr. Friedberg of the fact that honorary membership was given to me by the Society of Medical History of Chicago. Many thanks to you for your kind recommendation. I wrote him and thanked him very much. I shall be very glad to get in touch with the American medical societies and the workers in medical history. You were so kind to supply me with a list of men working in a field of medical history. I shall start correspondence with them.

When the gigantic work in medical bibliography, which Sir William Osler left will be completed and published by one of his pupils, I shall write a review of it. This work was done for generations, for centuries! The obituary you have published I read with the greatest interest; you are right, we shall not look upon his like again!

Please give my kindest remembrances to Dr. George Sarton, when you see him. I hope I may hear from you again.

Yours very sincerely,
Max Neuburger

V

Vienna, April 14, 1920

My dear Doctor Garrison:

I received your kind letter of March 25th signed by you and Dr. Streeter... I am so much obliged to you and to your friend. Many thanks for your kindness. The *Index Medicus*, January 1920, reached me by the same mail and I thank you very much for it. As soon as possible I shall write to your friend Dr. Rurāh of Baltimore. You are so kind that I shall like to see you in person and, therefore, I beg you to send an autographed copy of your portrait. I shall place it by the side of Sir William Osler's portrait.

Max Neuburger

(*Continued on page 756*)

FELLOWS'

COMPOUND SYRUP

FORMULA: Each fluid drachm contains

Strychnine Hydrochloride	Gr. 1/61	Calcium Hypophosphite	Gr. 5/16
Manganese Hypophosphite	Gr. 1/8	Iron Pyrophosphate	Gr. 1/8
Potassium Hypophosphite	Gr. 1/8		
Sodium Hypophosphite	Gr. 1/8		

Prescribed by the members of the Medical Profession and sold in many countries for more than 60 years.

1. Produces bitter and therefore tonic effects upon the alimentary canal.
2. Improves muscular tone and nutrition.
3. Provides limited respiratory and vasomotor stimulation.

Samples on Request

FELLOWS MEDICAL MANUFACTURING COMPANY, INC.
26 Christopher Street, New York City

FOR IODINE RESULTS WITHOUT THE USUAL IODINE DISTURBANCES

ORGANIDIN—WAMPOLE

A STABLE PREPARATION OF IODINE

IODINE

ORGANICALLY COMBINED

FOR INTERNAL ADMINISTRATION

Freely miscible with water. Contains no free iodine, no hydriodic acid, no inorganic iodides and no alcohol.

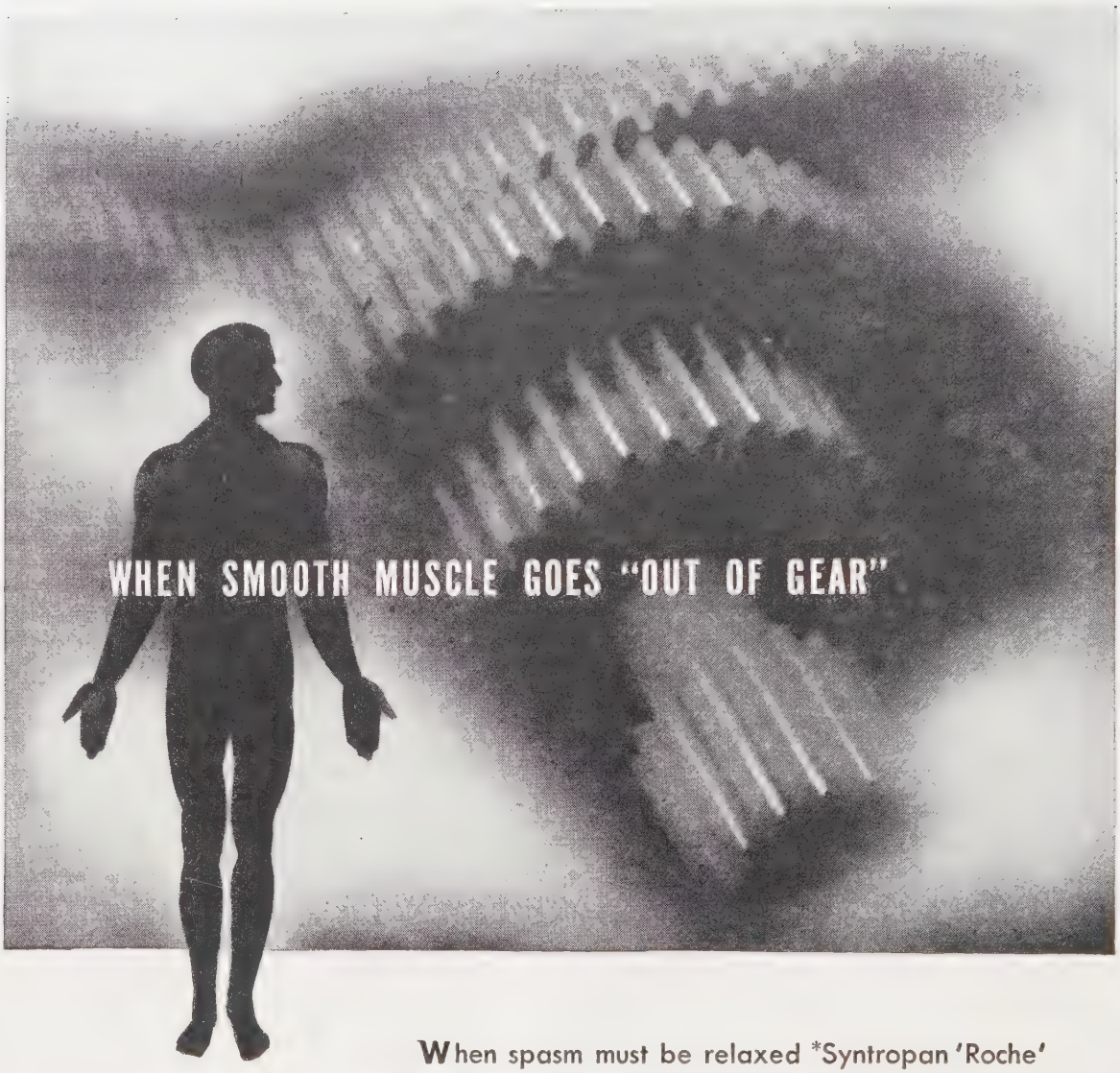
ORGANIDIN is absorbed readily from the gastro-intestinal tract, with less irritation and less toxicity than is produced by elementary iodine. Thus it permits a maximum effect with a minimum iodine dose.

A superior product which may be administered over an extended period of time with little probability of causing gastro-intestinal disturbances or iodism.

SUPPLIED IN 1-OZ. BOTTLES

MADE SOLELY BY

HENRY K. WAMPOLE & CO., INC.
MANUFACTURING PHARMACISTS
PHILADELPHIA, PA. U. S. A.



When spasm must be relaxed *Syntropan 'Roche' is a dependable and effective means of restoring normal tone and activity. ***INDICATIONS:*** Syntropan 'Roche' is indicated in pylorospasm, cardiospasm, intestinal colic, spastic constipation, gastric spasm, spasms due to peptic ulcer, megacolon, and tenesmus. ***DOSAGE:*** One tablet (50 mg) three or four times a day, or as required. By subcutaneous or intramuscular injection, one ampul t. i. d., or as required. HOFFMANN-LA ROCHE, INC., NUTLEY, NEW JERSEY

*Phosphate of dl-tropic acid ester of 3-diethylamino-2, 2-dimethyl-1-propanol.

SYNTROPAN 'ROCHE'

NON-NARCOTIC ANTISPASMODIC

MEDICAL RECORD

PUBLISHED MONTHLY BY
THE MEDICAL JOURNAL AND RECORD PUBLISHING CO., INC.

VOL. 156, No. 12 DECEMBER 1943 WHOLE No. 2731

MAX NEUBURGER ON HIS SEVENTY-FIFTH BIRTHDAY

SOLOMON R. KAGAN
Roxbury, Mass.

The Neuburger Family

Max Neuburger was born in Vienna, Austria, December 8, 1868. He is a descendent of two old German-Jewish families. His paternal great-grandfather, Heinemann, was a reputable dentist at the Court of Bavaria. Another ancestor, Moses Haarbleicher (1797-1869), the uncle of his mother and a close friend of Gabriel Riesser, was the secretary of the Deutsch-Israelitische Gemeinde at Hamburg and an author of German poems, forty of which were translated into Hebrew and included in the hymn-book of the Hamburg Congregation. Neuburger's paternal grandmother, Icanette Neuburger of Munich, the daughter of the above mentioned Dr. Heinemann, was well educated, a poetess, and beloved in her community because of her extensive social work. His father, Ferdinand Neuburger, was born in Munich on March 11, 1831, moved to Vienna in 1847, and became an Austrian citizen in 1859. He was a highly intelligent man and extraordinarily industrious. His appearance was that of an English gentleman of the Victorian period. For several years he worked as a correspondent in French, Italian, Spanish and English languages with various firms in Vienna, but finally he established himself as a merchant and went to London for buying certain merchandise at auctions. He had a step-brother, Julius Friedberger, who was a banker in London. Neuburger's father was a great admirer of English culture, was much interested in general history, and brought home from London the best English novels and historical books. Thus he aroused early in his son an interest in history. In 1860 Ferdinand Neuburger married Helene Defflis, the daughter of Julius David Defflis, a merchant in Hamburg. She was a woman of excellent education which she received in a higher school for girls at Hamburg. She was an ideal mother and took a great interest in her son's education. She suffered much from a chronic disorder of the nervous system and was frequently attended by physicians. In this way the young Neuburger came into contact with physicians and became interested in medicine very early in his life. This was the reason he decided to become a physician and not a merchant as was his father.

Neuburger was the only son in the family. His older sister, Bertha, a gifted and educated but too sentimental girl, died in 1913. His father died in 1914, and his mother in 1917.

Neuburger married Miss Johanna Ruth Conrad in 1899. She was of Aryan-German descent, but was converted to Judaism. She was an ideal wife and mother, always cheerful and satisfied with her husband's modest income, and was an encouraging companion and best friend in good and bad times. In May 1930 she died after an appendectomy and was buried in the Jewish part of the Central Friedhof in Vienna. There also are the tombs of his parents and sister. The sudden death of his beloved wife almost broke him. In his letters to Colonel Fielding H. Garrison he expressed his desperation on this occasion. It was years before his physical and mental vigor were again at their height.

Neuburger has two sons. The elder Max Camillo, a chemist, has lived in Tasmania since 1939, and is the author of several important papers on chemical topics. The younger son, Frederick K., a physician, has lived in the United States since 1938. On the recommendation of Harvey Cushing he obtained an appointment at the Jewish Hospital, Brooklyn, N. Y. At present he serves at the Buffalo General Hospital and at the Children's Hospital, Buffalo, N. Y. He is the author of several papers on medical subjects.

Education and Positions

Neuburger's education was that which was customary in the seventies and eighties of the nineteenth century; much attention was given to learning, little consideration to games and recreation, and no attention at all to sports. He first attended the elementary school and then the Gymnasium, where he spent ten years. In the latter he acquired a wide knowledge of Latin, Greek, German literature and history. Dr. Carl Haselbach, author of several historical publications, was the teacher of history at the Gymnasium, and he required much from his pupils in the field of history. He aroused in Neuburger a great interest in general history and the history of philosophy.

After passing the examinations in the Gymnasium, Neuburger entered the Vienna medical faculty and was graduated in 1893. While a medical student he also attended lectures given by the philosophic faculty. In 1917 he received the degree of Ph.D. from the University of Vienna. Among the teachers of the Vienna University was Theodor Puschmann, professor of the history of medicine. He exerted a great influence on Neuburger, stimulating him to do research work in the field of medical history. Moritz Benedikt, professor of neurology, aroused in Neuburger an interest in neurology.

Neuburger was resident physician at the Hospital Rudolfstiftung from 1893 to 1895, and then assistant in neurology at the Allgemeine Poliklinik. In 1898 he was appointed *privatdocent* of medical history at his alma mater on the recommendation of his master, Professor Puschmann. In 1904 Sudhoff wrote to the dean of the Vienna University recommending Neuburger to the professorship, and Neuburger succeeded Puschmann as an extraordinary professor. In 1917 he became professor of medical history and held this position until 1934. Then as a pensioner he became honorary professor and continued his lectures until 1938. During the first world war Neuburger served as civil physician with the Austrian army (1914-18). In August 1939 he settled in London, where he became associated with the Wellcome Historical Medical Museum on the recommendation of Sir D'Arcy Power and Professor Charles Singer.

Neuburger had corresponded with the great medical leaders the world over, and stimulated the research work of medical history. Among his correspondents were Pagel, Puschmann, Sudhoff, Osler, Cushing, Garrison and Castiglioni. For several years he had correspondence with the Polish medical author, philosopher and practitioner, Wladislau Biegansky who resided in Czentochov. His remarkable work, *Medical Logic,* went through several editions and was translated into German. After his death, his widow published his interesting correspondence and Neuburger's letters to him were incorporated in this book. Neuburger also had correspondence with Michael Lachtin, an eminent neurologist and professor of the history of medicine at the University of Moscow, who published *Russian Medicine.* It was he who recommended the election of Neuburger as an honorary member of the Imperial Russian Archeological Institute, and Neuburger was given a remarkable diploma in Byzantine style.

In recognition of his achievements as teacher and author, Neuburger was the recipient of many honors, both from his country and abroad, and from many medical organizations and several governments. In 1928 a *Festschrift* in honor of his sixtieth birthday was published by his friends, colleagues and pupils. It contains fifty medicohistorical articles. Among the contributors were Dr. B. Aschner of Vienna, Prof. J. Almkvist of Stockholm, Dr. M. A. Van Andel of Gorinchem, Dr. V. Bologa of Cluj, Prof. A. Castiglioni of Padua, Dr. S. Costa of Lisbon, Col. F. H. Garrison of Washington, D. C., Prof. J. Guiart of Lyon, Prof. Franz Hűbotter of Berlin, Dr. J. Johnson of Copenhagen, Dr. M. Meyerhof of Cairo, Prof. H. Sigerist of Leipzig, Dr. G. A. Wehrli of Zürich, and Prof. H. Zeiss of Moscow. The celebration of his sixtieth birthday took place in the Festsal of the Josephinum, the home of the Vienna Institute of History of Medicine and Museum. About one hundred persons attended this celebration and eight speeches were delivered in his honor. A medallion of Max Neuburger was struck on this occasion.

Scientific Accomplishments

Neuburger has contributed fundamental work to the history of medicine. His publications for a period of over fifty years (1892-1943) consist of 189 books, monographs and articles dealing with medical history, medical problems, biographies, obituaries, medical notes and reviews. He showed the development of medical thinking and the relation between the spirit of the time and medical science in each period of the history of mankind. From antiquity until the latest time the character of science had corresponded to the culture or civilization of the period; it was dependent upon the *Zeitgeist,* as each epoch has a basic, a fundamental idea, and the chief idea, basic phenomenon, is reflected, manifested by the different branches of culture, science, arts, philosophy, politics, etc. He proved this law particularly in his chief work, *Geschichte der Medizin* (two volumes, 1906-10). He also emphasized this idea of considering medicine a part of the whole culture in his *Einleitung zur Neuzeit,* an introduction to the second volume of the *Handbuch der Geschichte der Medizin* edited by him and Pagel (Jena, 1902-05), and in many other publications.

Neuburger's *History of Medicine* attracted wide attention. It was translated into English by E. Playfair (two volumes, 1910-25) under Osler's stimulation, who wrote in the preface to this book the following:

"When Fasciculus I of Neuburger's *Geschichte der Medizin* came to hand I felt that was a book which would be particularly useful to the English and American student—clearly written, not too exhaustive and well and systematically arranged. Born and educated in Vienna, Professor Neuburger had the great advantage of the care and instruction of Prof. Puschmann, who did so much to promote historical studies. Having published a number of preliminary studies Neuburger undertook to carry out Prof. Puschmann's design of an encyclopedic work on the history of medicine, and in association with Prof. Pagel of Berlin, this was successfully accomplished (1902-1905)".

Dr. Charles Singer wrote the following:

"In Austria the activities of the most philosophical of living medical historians, Professor Neuburger, have continued in spite of the terrible conditions through which the city of Vienna has passed and is passing. The first volume of his illuminating *History of Medicine* was rendered into English by Dr. Ernest Playfair, with the encouragement of Sir William Osler. The appearance of the second volume of this translation was a cherished wish, as it would be a suitable memorial, of that lover of learning" (1).

Fielding H. Garrison wrote the following:

"Through his *opus magnum* of 1906-11 he is easily the greatest philosophical historian of medicine. Endowed with a serene faculty for examining deeply into the causes of things and their relativity, he proceeds by the patient Germanic method of collecting innumerable data before drawing conclusions, and in his case, erudition, as in Verneuil's memorable dictum, actually leads to creation" (2).

Castiglioni, in his *History of Medicine,* wrote the following:

"Neuburger has been a prolific writer on a wide range of historical subjects; his excellent history of medicine carries the subject from the earliest times through the Middle Ages. It has been translated by Ernest Playfair, London (1910-25). Undoubtedly it is one of the most interesting and thoughtful of modern textbooks of medical history, written with clear vision and an extensive knowledge of source material. Neuburger's work emphasizes especially the philosophic aspects of medical thought. Neuburger, until recently professor ordinarius at Vienna and now living in London, was the founder of the Vienna Institute of Medical History, which includes an exemplary museum".

Neuburger established numerous important historical facts. Thus, he proved that William Harvey, not Matteo Realdo Colombo, was the discoverer of the pulmonary blood circulation. He was the first to describe Théophile Bordeu as a pioneer in endocrinology and the originator of the theory of internal secretions. He was the first to state that Swedenborg was the forerun-

ner of modern physiology of the brain. He first recorded that Zambaccari pioneered in experimental physiology and that Gall pioneered in cerebral localizations of functions. He showed that works on the physiology of the nervous system published in the seventeenth and eighteenth centuries are lacking a sound scientific basis, but modern neurology was compiled and created by competent investigators on the basis of modern scientific methods. He was the sole author to describe medicine in Josephus Flavius (A. D. 33-95?) and illustrated the differences between the medicine in the Bible and the medical passages in the historical work of Josephus Flavius. He remarked that Euryphon recognized the fact that arteries and veins contain blood. He attributed to B. Moor original ideas about hysteria.

Neuburger won recognition as an authoritative medical historian the world over. Pagel, Sudhoff, Garrison, Castiglioni quoted frequently his publications in their chief works on the history of medicine. References to Neuburger's works were also made by many other historians and authors, including Clio Medica editions, Krumbhaar, Osler, Allbutt, Singer, Browne and Wong and Wee Lien in the *History of Chinese Medicine.*

In 1943 Neuburger published a book entitled *British Medicine and the Vienna School.* In his preface the author remarks that though an intensive study has been made of the history of the medical faculty of Vienna and its connection with the medical schools of Padua, Leyden, Paris and Germany, a similar work on the correlation of the Vienna and British medical schools had been lacking. He has, therefore, undertaken to remedy this omission, inspired by the affection for his alma mater and his admiration for the pioneer achievements of British investigators and physicians.

A noted reviewer wrote the following about Neuburger's book: "The story of the intimacy between Vienna and Great Britain is here set forth briefly by Professor Neuburger, but the book has been planned on too small a scale to do justice to his extensive knowledge; in happier days he might have expanded it to a volume treble its present size, and still have escaped the charge of prolixity. Even in its present compact form, however, it is a record of international cooperation in the best traditions of medicine" (3).

Among the most notable works of Neuburger are his contributions to the history of experimental physiology and pathology, and to the history of neurology which was his favorite subject. He also wrote a great many biographies; translated some works from Spanish into German; edited some publications of Türck, Gall and Auenbrugger; wrote on the history of various medical problems, including nutrition and the healing power of nature; described the Vienna medical school and its place in the history of medicine; wrote on Arabian medicine which was highly praised by Meyerhof and Browne; and also published various notes of historical interest, including Bacon's and Schiller's relation to medicine and *Hermann Lingg,* which presents a biographical note on this poet-physician (4). A great number of Neuburger's books and articles were translated into several languages. His remarkable introduction to the *Handbuch der Geschichte der Medizin* attracted wide attention, and Professor Glasgow of England wanted to translate it into English, but the publishers did not consent.

Neuburger was the founder of the Institute of Medical History and Museum at the Vienna Medical School. Abraham Levinson wrote the following concerning the history of this Institute: "He (Neuburger) did it practically alone, receiving little encouragement from anyone. In 1913 he was able to secure a place in von Noorden's clinic, and in 1920 he finally obtained a place in the Josephinum, an old military academy of Vienna. The Institute now occupies eight rooms... Anyone who has been privileged to visit Professor Neuburger cannot help but admire this man for preserving many medical treasures and for his devotion to the history of medicine" (5).

As a lecturer, Neuburger was both eloquent and profound, greatly influencing his audience and arousing in his friends, associates, colleagues and pupils great interest in the subject of medical history. Many of his pupils are now teachers of the history of medicine in various parts of the world. Neuburger's accomplishments are recognized by the profession, now celebrating the seventy-fifth birthday of the dean of medical history, the beloved teacher, Professor Neuburger.

References

1. Singer, Charles: *Studies in the History and Method of Science,* Preface, Vol. II, Oxford, 1921.
2. Garrison, Fielding H.: Foreword to *Essay in the History of Medicine,* by Max Neuburger, p. 23. Medical Life Press, New York, 1930.
3. *Lancet,* p. 742 (June 12) 1943.
4. *Mitteilungen z. Gesch. d. Med.* Vol. 4, pp. 462-465, 1905.
5. Levinson, A.: *Professor Neuburger and his Institute for the History of Medicine. Bull. Soc. Med. History,* Chicago Vol. III, pp. 293-298, 1924.

176 Seaver Street

MAX NEUBURGER*

ARTURO CASTIGLIONI
New Haven, Conn.

On a bright winter day in 1928, a group of professors, physicians and students from many countries gathered in the great hall of the Josephinum, one of the most distinctive buildings which Vienna owes to the great Emperor whose name represents a period of enlightened liberalism. Max Neuburger was celebrating his sixtieth birthday. He was the great teacher who, in 1912, founded in Vienna the Museum and the new Institute of the History of Medicine, courageously fighting the great difficulties arising from the political and racial situations in Austria. He had collected the documents for an outstanding historical panorama of that great school of medicine of which Vienna boasted. He had published many historical books which are documentary proof of his indefatigable love for research. The school, which had been for almost a century the international center of clinical and scientific activity, attended by students from all parts of the

*From an address presented on Dec. 2nd at a meeting of the New York Association of Medical History.

world, among whom the Americans played an important rôle, reflected their greatness in Neuburger's work. Auenbrugger and Skoda, van Swieten and Rokitansky, Billroth, Nothnagel and Hyrtl, and the great teachers and clinicians were alive again in their glory. In the halls of the Museum, which was the work of this one man, who had been at the same time teacher, director, curator, librarian and collector of antiques—in addition to keeping the books on the shelves, labeling the objects, and receiving visitors—were to be found the most interesting documents, letters, instruments, and a large collection of remarkable portraits. Here were views of ancient Vienna, figures of clinicians and research workers, plans of the old hospital, autographs of teachers, notes of the students, and the prescriptions of the old doctors; the microscopes of Rokitansky, the original manuscript of Auenbrugger, the surgical instruments of Billroth, the splendid rare medical medallions left by Brettauer—a collection of treasures which was at the same time an historical document. Neuburger was the founder and the animating spirit of the Institute; he had personally found, collected, and classified every single piece in the Museum and there he lived in intimacy with the great and famous men of the past—the professors and physicians, the emperors and ministers, the revolutionary students, and the military surgeons of old Austria. The atmosphere of the Museum, with its splendid view of the ancient park, was so serene, so inspiring, that one really had the impression of a return to an ancient time.

The students who came from abroad found proof of the interesting relation existing between their native country and the school of Vienna; between the Dutch, the English, the Irish, the French and the American schools and the Viennese clinicians, and the permanent connection of Italian and Austrian medicine. The founder of the Military Medical School of the Josephinum was an Italian surgeon, Brambilla.

Max Neuburger, on his sixtieth birthday, accepted with his friendly smile the congratulation of the authorities and of the guests; and he appeared so intimately connected with his place of work that it seemed to all of them who knew and appreciated him that he was a living part—nay, even the soul—of the *Josephinum*. We all wished that the great work he had done and illustrated in so many beautiful volumes might remain as the perennial testimony of an illustrious school and illustrious scholar. We knew that Neuburger's work had been disorganized and hampered by the war which had doomed Austria, and that it was due only to his energy that he had continued, under the most difficult conditions, struggling bitterly, to devote all his activity to his historical work. But what we hoped, in this winter of 1928, was that now at least a period of calm and peace might have begun and that the mild philosopher, with the penetrating eyes and the noble soul, would be permitted to enjoy his life and the friendship of all those who knew what a great piece of work he had done.

It did not happen that way. Ten years later the medical historians were to gather in Yugoslavia, at the International Meeting of the Association for the History of Medicine, and they were prepared to offer to Neuburger the homage of his colleagues and friends in all parts of the world. They looked forward to this meeting and nobody enjoyed taking part in it more than I did. I had been a pupil and friend of Neuburger, as well as a collaborator, for thirty years; I had spent many hours in his Museum and his home, discussing historical and philosophical problems, talking of old Vienna and of Renaissance Italy, and I had fully appreciated his incomparable advice, his valuable help, and most of all his fine critical judgment. To my first medical historical work he had offered his invaluable collaboration in completing my research; he had encouraged my beginning and had given me the example of his activity and a passion for study which could not be suppressed even by the most bitter and tragic events. We all looked forward to seeing Neuburger at Zagreb, the seat of the Congress, but the political tension in Europe changed the situation. Neither Neuburger nor I, nor many of his friends were permitted to attend the congress and some months later Neuburger had to go into exile, abandoning his family, his home, his Museum, and his native town he had loved so passionately. Austria was invaded.

The tragic fury of this war has destroyed many treasures we cherished. The medical historical schools of Poland, which were among the finest in Europe, have been uprooted; the schools of Holland, of Belgium, of France, are closed, their teachers in exile; many valuable collections have been dispersed, many historians have found hospitality abroad. Max Neuburger is in London, where he is still working diligently, still studying and classifying old manuscripts, still illustrating the history of the Viennese school; and his latest papers show the same clear style, the same love for exact research, the same clear judgment. He is, among medical historians, the one who has most deeply studied and eloquently explained the evolution and the philosophy of medical thought in classical antiquity; he has given a masterly picture of the development of ancient medicine; he has devoted to the ancient and modern conception of the healing power of nature a brilliant study stressing the return of modern medicine to ancient Hippocratic doctrine. In other fields of historical medicine, but especially in the history of physiology of the nervous system, the research worker finds the ineradicable traces of his work. He must be considered as a great pioneer of historical studies and as the founder of the modern history of medicine as a history of ideas and as a philosophy of medical thought.

His pupils, his friends, his followers are not able to gather around him today, and to express their feelings to him. But today, on the seventy-fifth birthday of this gallant fighter, they hope and pray that the day of a new Renaissance may come; and then they will be able to resume the studies which he loved and from which in these days of tragic errors we can learn so much about the history of the human mind. Then Max Neuburger will be again at the former place of his work, again among the documents of a great past from which comes the augury of a future of freedom of teaching and of thinking. He will always give us the example of a high and clear historical judgment, of a deep knowledge of the past and of the present; and above all, the example of a love of work and of research which cannot be thwarted by the greatest adversities.

YALE UNIVERSITY MEDICAL SCHOOL

MAX NEUBURGER'S CONTRIBUTIONS TO MEDICAL HISTORY

ABRAHAM LEVINSON
Chicago, Ill.

Numerous indeed are Max Neuburger's contributions to medical history. As early as 1928, his writings on subjects of medicohistorical interest comprised sixteen books and more than a hundred articles. Since then he has published another book and numerous papers. His contributions cover practically every phase of medical history: biography, history of disease, research and medicine in many countries. He also wrote a history of medicine that was commended by Osler for its clarity and systematic arrangement. His most outstanding achievements, however, have been in the field of neurology and in the history of medicine in Vienna.

History of Neurology

Neuburger's first major contribution to literature was on the history of experimental neurophysiology. His monograph, *Historic Development of Experimental Brain and Cord Physiology,* published in 1897, marked a milestone in the history of that subject. Throughout the years, he has continued to make many additional contributions of fundamental value to the study of neurology. He has written on the history of myelitis, on the pathology and therapy of nervous diseases, and especially on the development of neuropathology in Germany. He has expounded and interpreted for us the theories of many renowned neurologists, such as Swedenborg and Gall. He has investigated and clarified the neurological views of Johann Peter Frank. Others may have touched upon these subjects, but no one has brought to them the scholarly research that Neuburger has. In fact, it would be no exaggeration to say that Neuburger has few if any peers as a recorder of the history of neurophysiology and pathology.

Neuburger's interest in neurology can no doubt be traced to his early training, particularly to his association with the famous neurologist, Benedikt.

The Vienna School of Medicine

The Vienna School of Medicine has been one of the important landmarks in medical history. It was founded by Van Swieten, who was called to Vienna by Empress Marie Theresa. The school has left its impress on the medical world through the achievements of such men as Johann Peter Frank, the first proponent of school hygiene; Auenbrugger, the originator of percussion; Rokitansky, the pathologist; Weichselbaum, the bacteriologist; Pirquet, the pediatrician, and scores of others.

The faculty of the University of Vienna constituted the "Who's Who" in medical history for many years. It is not surprising that Max Neuburger, who was an active member of the renowned faculty, should have become historian of this great institution of learning.

Neuburger was familiar not only with the entire historical background of Vienna but he knew intimately most of the men about whom he wrote, particularly Billroth the surgeon, Nothnagel the internist, Wiederhofer and Monti the pediatricians. Thus he was able to give us an all-embracing view of the lives, the contributions, the medical philosophies of the great men who made Vienna medicine one of the chapters of world medicine.

We may not agree with Neuburger as to the importance of Gall's contribution to neurology or Mesmer's to psychiatry. We may also differ with Neuburger as to Johann Peter Frank—whether he made a greater contribution to neurology or to child hygiene, but these differences do not detract from his magnificent evaluation of the life and work of the men who form the backbone of Vienna medicine.

Neuburger's knowledge of Austrian life and history, and his intimate association with Vienna medical life, found their expression in his scholarly work, *Entwicklung der Medizin in Oesterreich* (The Development of Medical History in Austria), his *Hermann Nothnagel,* and his masterly preface to the new edition of Auenbrugger's *Inventum Novum.* His most recent contribution to the Vienna School of Medicine is timely and interesting. In his book, *British Medicine and the Vienna School,* he draws comparisons between the views of the Viennese investigators and their English contemporaries, showing the relationship between the schools of medicine in the two countries.

The Josephinum

Early in his career, Neuburger realized the importance of gathering historical data and specimens in a central place for preservation. In 1906, he started his first collection of historical material. He did it single handed, receiving little encouragement from anyone. In 1913 he secured space in von Noorden's clinic, but it was not until 1920 that he was able to obtain a permanent repository for his valuable collection, in the Josephinum, an old military academy in Vienna. In describing the Josephinum I am drawing upon one of my articles which appeared in the *Bulletin* of the Society of Medical History of Chicago[1].

At the time that I visited the Josephinum it occupied eight large rooms, one of which was set aside for the library, another as a lecture hall, two for the preservation of historical data on medical Vienna and four for the large collection of wax figures and anatomical preparations.

The library contained about five thousand copies of medical archives. The records of the Josephinum could serve as excellent material for a history of military medicine during the past two centuries.

In the lecture room were portraits of men who had made medical history, copies of papyrus, the stethoscope of Laennec, the first roentgenogram, infants' nursing paraphernalia, vaccination certificates, the original ophthalmoscope, Chinese pharmaceutical preparations, and a skull subdivided into areas according to Gall.

In the Vienna room, one found portraits of famous Viennese physicians, conspicuous among which were those of Skoda and Billroth; medals, letters and prescriptions of old physicians, especially the prescriptions of Gall and Skoda. In this room were also found the instruments used by Billroth, Türck, Albert and others, the working glasses of Hyrtl, the microscope of Rokitansky, the ophthalmoscopic set of Artl and the first laryngoscope of Czermak. There were also portmortem

[1]December 1924, vol. 3, pp. 293-298.

reports, among them the report of an autopsy performed on Skoda. One found here also interesting drawings showing pathological conditions in children. These had been used by Wiederhofer and Escherich, the pediatricians, for teaching purposes. The death masks of Hyrtl and Langert were also a part of this collection.

A unique feature of the Institute for Medical History was the collection of wax preparations. These preparations, which numbered almost twelve hundred, were life-like reproductions of the various anatomical structures, such as muscle, bone, ligaments, nerves, blood-vessels and viscera. Most of them were life-sized and so perfectly reproduced that at first glance one could not tell whether they were part of real cadavers or wax models. They were displayed in glass cases and bore descriptions in Latin, German and Italian.

The models, which were made in Italy during the seventeenth century by Fontana and Mascagni, were brought to Vienna on mules in 1786. A duplicate of them existed only in Florence.

Neuburger the Man

Neuburger has always been a modest and naive person with a face and manner that radiated kindness and gentleness. He was always a hero worshipper, never letting the fact that he knew the faults and foibles of the men about whom he wrote detract from his reverence for their achievements. As for his work, it was always marked by an enthusiasm and religious fervor which often made him oblivious to his surroundings.

I recall an incident which occurred when he was lecturing on his favorite subject to a group of young American doctors. It was in 1923 and I had just organized for him a class in medical history. The class was made up of ten young American doctors who were taking postgraduate work in Vienna. Neuburger rose to the occasion with all the formality of a state function. He arrived in full dress. After welcoming the "great representatives of American medicine" to the University of Vienna, he started in purest *Hoch-Deutsch* on one of his classical lectures on the famous men in medical history. All the enthusiasm that was in his heart and soul for the work that he had truly made a "labor of love", he put into his learned discourse. He went on and on, putting more and more fervor into his talk as he recounted the epoch-making contributions of the men whose name and fame were emblazoned on the pages of medical history. He did not notice, as I did, that the "American representatives" tired out from their "whoopee" of the night before were "passing out" one by one.

In this tumultous world, the world of strife and struggle it is gratifying to find a man who can still retain his enthusiasm and inspiration. Such a person is the great medical historian, Max Neuburger, whose birthday we have the privilege of celebrating. I join his numerous admirers and disciples in wishing him many more years of creative activity.

30 NORTH MICHIGAN AVENUE

DIFFICULTIES CONFRONTING THE MEDICAL HISTORIAN

ALDO MIELI
Sante Fé, Argentina

In response to an invitation from Dr. Gregory Stragnell, editor of the MEDICAL RECORD, to contribute to the symposium dedicated to Max Neuburger, the eminent medical historian, I am presenting the following which deals with some of the problems confronting the medical historian.

Neuburger is one of the most eminent members of the International Academy of Historical Sciences. I have been the perpetual secretary of this organization since its foundation, and have had an extensive and stimulating correspondence with Neuburger for many years. The ties thus formed have led to a warm friendship for the man and an admiration of his works. He has been a victim of the political and social persecution of a diabolical, totalitarian government. Here, too, in Santa Fé, the work of the entire university has been restricted and calm scientific research impeded. I regret that the short time allotted for the preparation of this paper will not enable me to pay full tribute to the illustrious man to whom this issue of the MEDICAL RECORD is dedicated.

I would like to present a few of my ideas regarding the problems faced by an historian when considering the question of who should be given priority in medical findings. There is also the problem of giving an opinion as to whom credit should be given in regard to more recent scientific works.

It is frequently difficult to determine the merit and originality of any scientific discovery, especially when many different scientists have contributed to the final development of a certain subject. Until now, historians have taken a purely chronological viewpoint on these matters. Credit in the past has been given to the first person who made a discovery in order of time, and who so announced this discovery. This frequently deprived many workers of credit for much work that they had in progress or had completed in relation to this discovery.

Credit has not been given to John Mayow for having in all probability obtained oxygen in 1674 and for having studied the properties of the gas which he termed nitroaërial spirit of air. He also worked at this time on the function of respiration and combustion. This, no doubt, was due to the fact that this English scientist did not explicitly set forth his finding, whereas Carl Wilhelm Scheele, who in 1772 obtained this gas and studied it in its most diverse aspects, did. The discovery is not attributed to him because his results were published in 1777, while Joseph Priestley obtained "dephlogisticated air" as he called it, on the first of August, 1774, and published his sensational results long before the Swedish chemist published his. Finally, profiting from the false dates which had been published in the *Memoirs* of the Royal Academy of Sciences, Lavoisier laid claim to being the true discoverer, in spite of the fact that long before his own experi-

ments, Priestley, in a visit to Paris, is believed to have communicated to Lavoisier verbally his method of preparation, as well as the extraordinary properties of the newly discovered gas.

It is interesting to refer to another event which happened at about this period. The preparation and study of nitrogen is ordinarily attributed to Daniel Rutherford, but in the same year, 1772, perhaps earlier, Henry Cavendish had independently obtained and studied this gas. Analogous examples could be cited in great numbers. All historians who have even superficially occupied themselves with the history of the sciences have encountered similar situations, so it is needless to multiply examples.

Doubtless purely chronological recordings are basically convenient; however, it is frequently quite difficult and, in some instances, not possible to establish the identity of the true discoverer, and one must not depend too much on the publications which simply note the dates. In view of the foregoing, it can be seen that, where various individuals with varying interests are attempting to establish the rights of priority, confusion may result. This frequently results in an injustice to many who have done serious scientific research.

The International Academy of Historical Sciences has established a Bureau of Priorities to solve some of these questions of priority which have been submitted to them. It has been difficult for this Bureau to function mainly on account of the uncertain conditions which existed in the world even before the present war and which in great measure have annulled the work of the Bureau.

I have frequently observed how unjust the purely chronological criteria are. Historians must adopt new methods if they desire to reach a decision objectively and justly. One must re-examine the precise data of the work which various individuals have accomplished if one is to determine who the originators of certain pieces of work are. It is frequently difficult to determine which is a preliminary piece of work and which arrives at definite conclusions. We believe that priorities should be established only after the basic work began. Much work must be eliminated which is not essential to the establishing of priority.

Unfortunately, at times there will be attempts at plagiarism. We recall how the great scientist, Lavoisier, attempted to pose as the discoverer of oxygen while he had received oral communications from Priestly and other information from Scheele, and had also utilized some of the work of Pierre Bayen, which was published early in 1774. More extraordinary was the claim of Lavoisier that he had made the discovery of the composition of water.

This discovery was made in 1781 by Henry Cavendish. Charles Blagden, who had assisted Cavendish in his experiments, was in Paris in 1783 and had spoken to several members of the Academy of Sciences, including Lavoisier, about the discovery. Lavoisier, with his extremely quick mind, realized the importance of the discovery in establishing the new antiphlogistic theory. He and Laplace wrote to De Luc about Cavendish's discovery and he himself claimed to be the discoverer of the composition of water. It is to be noted that Cavendish, who was serious and conscientious, did not publish his notes on the composition of water until 1784. He somewhat antedated Rutherford's discovery of the preparation of nitrogen.

In this last instance it would be just to divide the merits of the discovery between Rutherford and Cavendish who each worked independently on the composition of water. The plagiarism was evidently Lavoisier's who used false dates which were published in the *Memoirs* of the Royal Academy of Sciences.

After the flagrant cases of plagiarism are excluded, the historian begins a still more difficult task, especially in the more remote periods. The historian is handicapped by insufficient and inconclusive documents. At times, discoveries, which appear to be attributed to specific persons, are derived from the works or clues of others who deserve credit, and at times, sole credit for their work.

The scientific achievements during the lifetime of Galileo provide an example. A man in Holland had constructed a tube with lenses that revealed distant objects. Galileo was informed of this fact when he constructed his famous telescope. The Dutch optical maker deserves mention yet Galileo should be given credit as the inventor of the telescope; this, however, is not the important point. When Galileo directed his telescope towards the sky, he discovered many new and interesting objects: the mountains of the moon, the phases of Venus, the first four satellites of Jupiter, the triple form of Saturn, and the spots on the sun. On the other hand, Fabricius, Scheiner, and others claimed priority in these discoveries. Examining the situation carefully it can be stated that others observed these objects before Galileo made his announcement. But what does all this signify? After Galileo had constructed his telescope and learned to scrutinize the sky methodically, any child could have seen the sun spots. The merit of the discovery was that the great Tuscan, Galileo, and he alone should be given credit for the innovations following his findings in 1610.

At times, two or more scientists will arrive at the same conclusions at about the same time. Their methods of approach may have been different or almost identical. This can be explained by the fact that in a definite epoch several ideas materialized at about the same time; and in these instances, it is difficult to attribute priority to any specific person. An example may be cited in the case of Robert Mayer, James Prescott Joule, and Herman von Helmholtz. In this instance, nationalistic tendencies entered into the controversy and these are always detrimental in any scientific, political, or social problem. All of these eminent scientists deserve the admiration of grateful humanity.

Another question which frequently arises is that of the distant precursors, sometimes going back centuries. At times their theories will come to light through new facts and give new life to the original ideas. Here, too, it is necessary to proceed with caution and not exaggerate the importance of the old to the detriment of the new, and, on the other hand, not to lessen any merit of the old in the face of new developments. Frequently, the ancient discoveries are vague and confused; and while they may be interesting they do not deserve consideration as true discoveries in the light of modern times, but the original ideas may have been a stimulus to developments of today. The ancient Greeks had certain ideas on evolution in spite of their lack of

scientific background; however, today we recognize only the works of Buffon, Lamarck and Darwin, and of the modern supporters of the theory of evolution.

The system of Aristarchus of Samos does not in any way detract from the merits of the work of Copernicus who himself recognized the ancient theories.

The question of the circulation of the blood has given rise to harsh polemics, some of which arose from chauvinistic attitudes. It is difficult to give William Harvey sole credit as the discoverer of this physiological phenomenon without recognizing a series of discoverers, including those of Ibn al-Nafis and the work of Realdo Colombo and his anatomical studies and his influence on Miguel Servetus who studied the circulation of the small as well as the larger vessels and who was followed by Andrea Cesalpino. We must also give credit to Gerolamo Fabrizi d'Acquapendente. This in no way detracts from the admirable work of Harvey who presented mechanical and mathematical proof of his findings and tenaciously continued his work in spite of the opposition of the conservatives.

Finally, we must give credit to Marcello Malpighi for his observations on the passage of the blood through the capillaries of the frog. It would be unjust to isolate any one of these discoveries without thinking of the picture as a whole. In anatomy and in medicine we find many discussions regarding the names given to organs, parts of organs, or to syndromes of disease.

Questions of priority rarely resolve themselves. Hasty judgments should be avoided and only the real facts considered. In more modern research, works which appear at a rather late date are frequently fruits of independent investigations begun at a much earlier time and valid conclusions reached. The task of determining priority is at times extremely complicated; however, we believe it absolutely necessary to follow a new pathway if we wish the history of science to be a true and just record.

MAX NEUBURGER, HISTORIAN, AT SEVENTY-FIVE

MAX THOREK
Chicago, Ill.

Max Neuburger was born December 8, 1868, and on December 8th of this year he will celebrate his seventy-fifth birthday. He was graduated from the Vienna Medical School fifty years ago, and should have received a new diploma on June 10, 1943, on the occasion of his golden "doctor jubilee" at Vienna University. The only official recognition of this landmark was shown by the staff of the Wellcome Medical Museum in London, where he now works in an advisory capacity on the recommendation of the late Sir D'Arcy Power and Charles Singer.

Besides the M.D. degree Neuburger holds the degree of Ph.D. in history. Before devoting himself entirely to study and research in the history of medicine, he specialized in neurology—which explains his many important contributions to the history of neurophysiology and neuropathology.

He began as *Privatdozent* at the University of Vienna in 1898 and 1904 he became professor extraordinarius, and later professor ordinarius. He contributed much to the advancement of medical history, his medicohistorical articles beginning to appear as early as 1892. His greatest accomplishments are:

1. The creation and development of the Institute for the History of Medicine and Museum at the University of Vienna with its excellent medicohistorical library. 2. His medicohistorical research and the publication of many outstanding medicohistorical works which promise to be standard for many decades to come. 3. A renowned reputation as a teacher of the history of medicine.

The museum and library were completely his creation. He started them without any assistance from the Ministry of Education. He succeeded Theodor Puschmann, who was professor of the history of medicine at the University of Vienna, in 1904, on the recommendation of Karl Sudhoff, and continued his teaching until 1938. He attained widespread professional recognition for his achievement in founding the Institute for the History of Medicine.

The most important part of the collection was that dealing with the Vienna Medical School, which was outstanding in its completeness. About 1919 or 1920 the Museum moved into the *Josephinum,* the building of the defunct Josephinian Military Medical Academy. The enormous library of this academy and the great anatomical museum consisting of wax preparations made in Florence in the eighteenth century by Fontana and Mascagni, which were housed in the same building, became part of the Institute. The basis of the historical library was his own library, which he gave to the Institute; during the many years he was director—and later curator—all gifts in the form of books, pictures, and *objets d'art* given to him went into the Museum. For many years it was an attraction for medicohistorians from all over the world.

The first large work published by Neuburger (1897) was *The Historical Development of the Experimental Brain—and Spinal Cord Physiology Before Flourens,* a volume of almost four hundred pages. Garrison speaks of "his vast researches on the origin of modern neurology" of which the mentioned work is the most important because it "shows, as only a veteran neurologist could show, just why the entire physiology of the nervous system of the seventeenth and eighteenth centuries had to be scrapped, to await the findings of more careful and competent investigators" (F. H. Garrison: Introduction to *Essays in the History of Medicine,* by Max Neuburger, 1930).

He published many articles in the same field: in 1896 an article for the centenary of Gall's brain theory; "German Experimental Physiologists of the Seventeenth Century" (1897); "Beginnings of Experimental Pathology" (1898); "Vesalius as Brain Physiologist" (1897); "Contributions to the History of Neurology: I. From the Mystery of Hysteria; II. The Anti-epileptica of Animal Origin of the Ancient Physicians" (1899); "Glancing Lights on the Neurological Research in Vienna during the Eighteenth Century" (1909); "Johann Peter Frank, the Founder of Spinal

Cord Pathology" (1909); "Ludwig Türck's Collected Neurological Writings" (1910); "From the Past of the German Neuropathology" (1911); "A Neurological Consilium of Peter Frank" (1912); "General Pathology and Therapy of Nervous Diseases One Hundred Years Ago" (1912); "Explorations in the Older German Literature on Myelitis" (1912); "Anton de Haen and Maximilian Stoll as Neuropathologists" (1913); Johann Peter Frank and Neuropathology" (1913); "Studies in the History of German Brain Pathology" (1913); "Gall's Relation to Mesmerism" (1916); "To the Biography of Gall" (1917); "To the History of Tabes" (1924, etc.

Another important chapter, and one closely related to that of the history of neurology, is that dealing with his researches on Swedenborg: "Swedenborg's Relations to Brain Physiology" (1901), "Swedenborg's Position on the Theory of the Vita Propia" (1903), "What did Swedenborg Teach about the Function of the Corpora Quadrigemina" (1903), "Swedenborg Redivivus" (1903), "Some Important Accordances between Swedenborg and Modern Physiology," and "Swedenborg on the Spinal Cord." The last two papers were read at the International Swedenborg Congress in London and published with all the papers read at this Congress, and at his initiative the publication of Swedenborg's unpublished writings by the Swedish Academy of Sciences at Stockholm was decided upon. A Viennese historian said, "Swedenborg was brought closer to most scientists particularly by the classical research work of Neuburger" (F. Struntz).

Many biographical works are connected with his interest in the history of neurology (in its various phases)). Among these are *Johann Christian Reil* (1913); *Hermann Nothnagel, Life and Work of a German Clinician* (1922); *Ernst Freiherr von Feuchtersleben* (1906).

The history of the Vienna School is a field in which he has published important works and which has held his interest up to the present time. This is proved by the publication early this year of his book, *British Medicine and the Vienna School* (1943). An article on similar material had appeared the year before in the *Bulletin of the History of Medicine*. In this field he published "The Development of Medicine in Austria," "The Old Medical Vienna in Contemporary Description," and "The Vienna Medical School in the Vormärz." There are several articles under the title "Viennensia Medica" (1896-1898); "The Old Medical Vienna at the Time of the Congress (1814-1815)" (1896), "The Older Medicohistorical Literature of Vienna" (1904), "Physicians and Public in Vienna 100 Years Ago" (1905), and many others dealing with the famous General Hospital (*Allgemeines Krankenhaus*) in Vienna, the history of pediatrics in Vienna and the many world-famous men who taught and worked in Vienna, such as de Haen, Stoll, Johann Peter Frank, Türck, Rokitansky, Skoda, Nothnagel and Semmelweis. Important in this connection is his volume, *Auenbrugger: Inventum Novum. Facsimile of the first edition* (1922).

Neuburger's *opus magnum* is undoubtedly his *History of Medicine* (two volumes, 1906-1910), which was translated into English and published by the Oxford Press with an introduction by William Osler (1910-1925). "Through this", according to F. H. Garrison, "he is easily the greatest philosophical historian of medicine" (*Essays on the History of Medicine,* 1930).

We join in saying to this savant, "Neuburger ad multos annos".

A VISIT TO MAX NEUBURGER IN VIENNA

ISAAC A. ABT
Chicago, Ill.

I had made several journeys to Europe, beginning with my maiden trip in 1893, but in 1929 I resolved to take a sabbatical holiday, so that my wife and I could rest and relax in European centers.

We left Chicago in June and spent several weeks in London, where I visited clinics and courses. We then visited friends in Paris, where I attended a course of lectures and demonstrations on the psychotherapeutics of childhood. We then went to Munich. After finishing the course at Munich, we decided to take a rest at Freiburg-im-Breisgau. We continued our vacation by making a tour of Switzerland, and arrived in Vienna about the middle of September.

I decided to spend three or four months in Vienna, visiting clinics and consorting with members of the medical faculty. I enrolled as a student in Professor Neuburger's course in medical history. He was lecturing on the history of Grecian and Greco-Roman medicine, and he also dwelt upon his original and interesting interpretations of the School of Salerno. I had numerous opportunities to have private and intimate conversations with him, and he aroused my interest in Christian Wilhelm Hufeland, the famous eighteenth century philanthropic physician, about whom I subsequently made historical studies.

Professor Neuburger was greatly interested in Emanuel Swedenborg, in fact, he had written several papers pointing out the valuable contributions Swedenborg had made to brain physiology. Swedenborg, he believed, anticipated many of the modern views concerning the function of the brain. He showed that the motion of the brain was synchronous with the respiration and not with the action of the heart and the circulation. He also pointed out that cerebral action is the result of a combined activity of individual cells. His views on the physiological functions of the spinal cord are in agreement with recent research, and he also anticipated modern investigation on some of the functions of the ductless glands. Neuburger was much impressed with the genius of Swedenborg and he impressed me also with the scientific contributions of this versatile mind.

I was alway pleased to have Professor Neuburger's views on contemporary Viennese medical authorities. He revealed to me intimate and personal characteristics of Billroth, whom he greatly admired, emphasizing his

position as a great surgical teacher as well as his ardent devotion to music. He was intimately acquainted with the great pediatricians of the period and had interesting anecdotes about Wiederhofer, who was not only a professor at the university but also physician to the royal court. He recalled Huttenbrenner, the former assistant of Wiederhofer and finally director of the St. Carolinen Children's Hospital. He had many anecdotes about Monti, director of the pediatric department at the Polyclinic, who was of Italian descent, a busy practitioner and an effective teacher.

Neuburger frequently spoke to me about the great internist, Herman Nothnagel, whose biography, entitled *The Life and Work of a German Clinician,* he wrote. Neuburger was well qualified to write this biography, not only because he was a student of medical history, but in particular because he was a commentator on the history of the Vienna medical faculty, and a personal friend of Nothnagel.

Nothnagel was not only a great clinical teacher of internal medicine, he was by nature democratic and a humanitarian. He frequently told students that a great and good physician must first of all be a good man. Neuburger once told me that this thought was exemplified by Nothnagel's way of life, though the expression did not originate with him but with Hufeland.

Professor Neuburger stimulated my interest in medical history. He was a great admirer of my friend and classmate, Fielding Garrison, was warm in his praise of his publications and particularly of his stimulating influence on the study of medical history in English-speaking countries. Neuburger directed my attention to the literature and publications on medical history, and we made use of the extensive library in the Josephinum, where we spent many hours together in reading the books and consulting references in journals and dissertations. He was not only my teacher in the usual acceptance of the term; he was a personal guide and friend.

On December 8, 1928, the faculty, friends and pupils of Professor Neuburger celebrated his sixtieth birthday. The festivities began at nine o'clock in the morning. Speeches were made by some of the city officials. Dr. Rudolph Maresch, professor of pathology, paid a fitting tribute to the guest of honor, and Prof. Arturo Castiglioni, of Padua, spoke in high praise of his contributions to medical history. Medical historians from the various university centers of Europe attended this distinguished gathering. In the evening a sumptuous banquet was held. Naturally, the professor occupied the seat of honor. Speeches were made, toasts were drunk, and all in all it was a gala evening.

The *Festschrift,* prepared in honor of the occasion, contained contributions from colleagues, students and friends from many parts of the world. On the front page was the reproduction of a medallion which had been struck off in honor of the distinguished guest.

Ten years later preparations were made to celebrate Professor Neuburger's seventieth birthday. Cruel fate decreed that this should not come to pass. After untold suffering and deprivation, this aged and distinguished scientist found refuge in England, where he still lives and labors in his chosen field.[1]

His contributions to science, to learning and to medical history will be remembered with respect and affection long after the smoke and horrors of battle have cleared away and persecutions have ceased.

[1]Since writing this article, I have received a letter from Professor Neuburger from London, in which he recalled my visit in 1928 and also reminded me he had been prevented from coming to Northwestern University Medical School by the outbreak of the war in 1939. He acknowledged receiving an official invitation from Dr. Irving S. Cutler, dean of the Medical School.

MAX NEUBURGER

WILLIAM LE FANU
London, England

Neuburger has been famous in England as the prince of medical historians, since his *History of Medicine* appeared in Ernest Playfair's translation more than thirty years ago. Unfortunately this great book remains a torso, and his other work has been too little known here. English medical historians have been for the most part practising physicians, not occupants of chairs endowed for historical research. The absence of any medicohistorical "seminar", when combined with the national shyness of generalization, has conditioned output here to special studies with biographical or bibliographical background. The great sweep and range of Neuburger's philosophical survey are an admirable corrective and supplement to this. His generalizations are guaranteed by the wealth of his own erudition. In the nine years between his graduation in 1893 and his appointment as professor at Vienna he had produced three large historical studies of special topics—brain physiology, specific nutrition, and antitoxic therapy—and had collaborated with Julius Pagel in editing the *Handbuch* of medical history launched by his master, Puschmann. This remains after forty years a reference book of the highest value, a monument and a mine of careful scholarship. But it does not profess to provide the view of medicine in its setting of cultural evolution which Neuburger's own *Geschichte der Medizin* deliberately and successfully offers.

Garrison, the master of Anglo-American medical historians, looked to Neuburger and Sudhoff as the prophets of the new twentieth century school of medical historiographers, and it is clear from his own writings that he had taken Neuburger as his model. Karl Sudhoff was an independent researcher of inexhaustible energy and perspicacity, a ransacker of libraries in the spirit of the renaissance humanists, who searched out the contemporary manuscripts of mediaeval anatomists and physicians, and threw open whole neglected storerooms of scholarship. Neuburger, on the other hand, has been the garnerer of the harvests of original research, synthesizing the miscellaneous evidence into a proportioned story. This is a task which only a scholar and critic, himself at home with the source literature, can adequately carry through. How adequately Neuburger had equipped himself every reader of his *History* can see.

While the English-speaking inquirer turns to Garri-

son for the ready reference and the thumbnail sketch, he must look to Neuburger for elaborate criticism and reconstruction of the intellectual milieu in which the old doctors thought and wrote. There, too, he will find, and perhaps there alone, systematic appreciation of that elusive essence, the influence of one age or school upon another. The chapters in the *History* on "Hippocratic medicine in general", "The general conditions of medicine in the decline of antiquity", "Arabic influence on western medicine", and so on, are masterpieces of informed generalization. Each of these chapters forms an introduction to thoroughly worked-out critiques of the literature surviving from the period in view. The specialist acquainted with forty years' subsequent research will, of course, find the conclusions not altogether adequate today. But Osler's enthusiastic commendation still holds for the general reader; though Neuburger demands wide historical cultivation in his readers, the book is still fresh and, as Osler said, clean, systematic and not too exhaustive.

What has been Neuburger's most original contribution to medical history? His specialist studies place him only as an outstanding student among many of like purpose and activity. His *History* has given a new universality, a new sense of proportion to medical history. This has been ably continued by such men as Garrison and Singer; but the inspiration was Neuburger's.

In the period between the wars, beside his larger books of learning and biography, he produced one little volume whose example has been readily taken up. The delightful "Old medical Vienna in contemporary descriptions" is a cento from old authors, native and visiting, giving their own accounts of the famous school of the old Imperial City in its habit as they saw it, for close on two centuries the most famous medical school in the world. Since Hitler's destruction of the Vienna school, Professor Neuburger has been a welcome guest in England, where he is at work among the book-treasures of the Wellcome library. His recent volume on "British medicine and the Vienna school, contacts and parallels" is well calculated to attract English-speaking readers to his earlier books.

I am proud to join in wishing him good health at this jubilee of his doctorate, and also wish him many more years of active work.

MAX NEUBURGER: AN APPRECIATION

SIR HUMPHRY DAVY ROLLESTON
London, England

On December 8th all who are interested in the history of medicine will wish to offer their most sincere congratulations to Professor Max Neuburger on his seventy-fifth birthday. He was appointed professor of the history of medicine in the University of Vienna in succession to Theodor Puschmann (1844-99) as long ago as 1900. From 1902 to 1905 he collaborated with Julius Leopold Pagel (1851-1912) of Berlin in bringing out, thereby carrying on the tradition of Puschmann, the *Handbuch der Geschichte der Medizin,* the translation of which into English was undertaken by Ernest Playfair. Volume I of the translation, with a preface by Sir William Osler, appeared in 1910, and Part I of Volume II in 1925. Garrison specially appreciated the account of the physiology of the nervous system during the seventeenth and eighteenth centuries (1897), the mechanism of specific nutrition (1900), antitoxic therapy (1900), treatment of acute infections (1901), the German neuropathology (1912), and the doctrine of the healing power of Nature throughout the course of life (translated into English by L. J. Boyd, 1905).

Neuburger was described in the last (fourth, 1929) edition of Fielding H. Garrison's *Introduction to the History of Medicine* as "the veteran", and elsewhere in the same masterpiece is spoken of as outstanding in eminence among those active modern authors of works on the history of medicine. Garrison also paid a later tribute to Neuburger by writing a foreword to a collection of essays on medical history, by Neuburger, translated into English by various hands (1930). Two years before this, in 1928, Neuburger's colleagues and friends, more than fifty in number, celebrated his sixtieth birthday by a *Festschrift.*

Neuburger began to write early, towards the end of the last century, on the subject he has chosen to adorn, and has continued to do so since. Two papers have already appeared from him in the first half of this year, both in English, and may be briefly mentioned. The first is entitled *British Medicine and the Vienna School: Contacts and Parallels.* This is the work of the man who was appointed professor of the history of medicine at the University of Vienna, as long ago as 1900. More recently, when made a refugee by the Hitler regime, the Wellcome Historical Medical Museum gave him opportunities for work in London, and he now pays his present hosts a graceful compliment by this piece of research. It is indeed the outcome of unique personal experience of work in the two centres of medical education—undergraduate and postgraduate. In thirteen concise chapters it compares the leading figures in the two countries, for example, Van Swieten (1700-72) and de Haen (1704-76) of Vienna and Thomas Sydenham (1624-89) of London; J. J. von Plenck (1732-1807) of Vienna and Robert Willan (1757-1812) of London; the British oculists—W. Mackenzie (1791-1868) and James Wardrop (1783-1868) are compared with G. T. Beer of Vienna; L. F. Boër, professor of obstetrics in Vienna, with William Hunter (1718-83) and William Smellie (1697-1763) of London; J. C. Rokitansky (1804-78) of Vienna with Matthew Baillie (1761-1823) of London; Joseph Lister (1827-1912) and Theodor Billroth (1829-94).

The other article already published by Neuburger during this year is a comprehensive account of the part played by Jewish medical practitioners throughout the history of medicine. It appeared in *Medical Leaves,* Chicago (1943), 5:56-75, a publication devoted to the interests of Jewish medicine and practitioners having as one of its two associate editors Dr. Solomon R. Kagan, of Boston.

Finally let us all join in the most cordial good wishes to Professor Max Neuburger.

From the Editor

It is with much pride that we present this special issue of the MEDICAL RECORD in commemoration of Dr. Max Neuburger's seventy-fifth birthday. Dr. Neuburger's work marks an important milestone in the development of medical progress.

We feel it quite unnecessary to enumerate his achievements or try to explain why he has reached this position. We firmly believe it better to express appreciation of a man's work in his lifetime than to eulogize him posthumously. A reading of the papers in this issue will explain to our readers the esteem in which Dr. Neuburger is held by those with whom he worked and came in contact, and also will serve to give a few of the reasons why he has attained this position.

Full credit for this issue must go to Dr. Solomon R. Kagan, one of Neuburger's former pupils, who has labored arduously to make this issue a success. Our readers will discover that most of the papers in this issue are by former pupils of Neuburger. Had we had papers from all of Neuburger's pupils and admirers, the material would have filled many volumes. We further have great gratification in paying tribute to Neuburger as he is a refugee from Nazi tyranny as are many other great scientists, such as Freud. In these troubled days, we are happy to be able to talk about the constructive achievements of a great man.

We thank all of the contributors to this Neuburger issue for their splendid cooperation for we know that in most instances the preparation of the papers for this issue was done at considerable expense of time and energy; and if it had not been for the great regard they had for Neuburger, they would not have cooperated so wholeheartedly. We trust that our many readers will derive stimulus from this special issue of the MEDICAL RECORD.

G. STRAGNELL, M.D.
Editor

Max Neuburger, Valiant Scholar!

Max Neuburger, at seventy-five, stands out as a gigantic figure carrying on serenely "through change and through storm" his scholarly work of half a century. Today, his name, like that of Puschmann, his teacher, and of Sudhoff and Garrison, is a password to all who see medicine in its historical value.

His first contribution to medical history appeared in 1897. In 1906, when his *Geschichte der Medizin* came out, no less a personality than William Osler felt "that here was a book that would be particularly useful to the English and American student, clearly written, not too exhaustive, and well and systematically arranged". With Osler's encouragement, it was translated and published by the Oxford University Press. A bibliography of his writings up through 1928 comprises 139 items, covering the whole field of medicine throughout the ages. One of his recent papers, *Jewish Physicians in the History of Medicine,* was translated, with the assistance of his son, Dr. F. K. Neuburger, by Dr. Solomon R. Kagan, and published in the 1943 issue of *Medical Leaves*.

History of medicine to him is but a phase of the general history and culture of mankind. It has been his life work to trace the evolution of medicine and to study its relation to the intellectual movements in different periods. It is not enough for the scholar to be able to discover facts, he must also have historical insight so as to recognize their significance.

This universal approach to human culture did not keep him from saying: "Since the loss of their national independence the Jews played merely a passive rôle in the political history of the world, but the activity of their creative genius continued through the generations down to the present day . . . It is not the striving for recognition, nor the passion for glory which urges the Jewish physician to choose the medical profession, as practitioner or as investigator, but a certain, perhaps hereditary or psychological predilection for this profession. To serve humanity in this manner is perhaps part of the mission given to the Jews; a task to which they seem to be especially qualified by their heredity."

Hail, Max Neuburger, valiant scholar!

HYMAN MORRISON
Boston, Mass.

To Max Neuburger on His Seventy-Fifth Birthday

In the vicinity of the world-renowned General Hospital of Vienna stands a distinguished building of baroque style erected one hundred and fifty years ago, the Josephinum. It was once the medical school for military physicians. Max Neuburger, professor of the history of medicine at the University of Vienna, created there the Museum of the History of Medicine, where he worked nearly twenty years. There one could find him among the numerous collections in the Museum, in which the most important departments were the library and the anatomical wax specimens, famous for their artistic perfection. There he worked, the great scientist, doctor of medicine and philosophy, not large of stature, but great in spirit, knowledge, goodness and assiduity. It is not in my power to evaluate Dr. Neuburger's scientific works, but I should like to say that I have always admired the genius and diligence reflected by his publications. Their number is nearly two hundred. Among them the *Handbook of the History of Medicine* with Pagel, the *History of Medicine* in two volumes, and a splendid work on knowledge of the healing power of nature (*Die Lehre von der Heilkraft der Natur*).

The festival of your seventy-fifth birthday, dear Professor Neuburger, offers an opportunity to all physicians of the world, but especially to us Austrian physicians and former members of the teaching staff of the University of Vienna, to express our felicitations to you and our admiration for your great work. This will survive as a monument; speaking in the spirit of Horace: "quod non civium ardor prava jubentium possit diruere aut fugaque temporum" [a monument which cannot be destroyed either by the ardor of citizens demanding wicked acts, nor by the passing centuries].

OSCAR HIRSCH
Boston, Mass.

Greetings to Dr. Neuburger

It gives me much satisfaction to be among the old friends greeting you, Dr. Neuburger, on your seventy-fifth anniversary, and expressing to you heartiest congratulations on this occasion.

I remember with pleasure the time when you were one of the outstanding members of the medical faculty of the University of Vienna. I had the privilege of attending your lectures on the history of medicine, as a first year medical student. They are for me unforgettable, first of all because they were delivered by one of the greatest experts in this field, and also because they were the first lectures in my academic life, which always leave an unextinguishable impression. I also remember with particular pleasure the stimulating hours I spent in your company many years later when I was one of the associates of Von Pirquet.

It must be very satisfying to you to look back on this day and to see that your work is recognized all over the world. I hope we shall meet again one day in London. Meanwhile, many happy returns and all the best wishes.

RICHARD WAGNER
Boston, Mass.

Max Neuburger

"Integer vitae, sclerisque purus."

Is it true, I asked myself, is it possible, that Max Neuburger will soon be seventy-five years old? Just a few years ago, six or so, I had the pleasure of meeting him in his Institute for the History of Medicine in Vienna. It was located in the old, well known building of the Academia Josephina, where, by the end of the eighteenth century, at the order of Joseph II, a school was founded for the education and training of young military physicians. The Academy was later closed, medical research, study and training being entrusted exclusively to the Medical Faculty in the University.

After the first world war, in the course of reconstructing public institutions in Austria, it seemed to be advisable to modernize even the teaching of the history of medicine and to create an Institute for that purpose. A better man and a better place could hardly be chosen than Neuburger and the old Academia Josephina. Its half-forgotten rooms were cleaned and reopened, a modest fund for the purchase of shelves and books was raised, and Neuburger took over the new Institute. Theodor Puschmann, the teacher of Neuburger, gave lectures on the history of medicine in the University of Vienna and did brilliant research work, though he was not the head of an institute.

Neuburger was then at the height of his scientific career. Enjoying a high and well deserved reputation on account of his many contributions to medical history, he devoted several years to the study of "universal" history, out of the conviction that medicine and its development can by no means be isolated or detached from the culture and the spiritual tendencies of an age.

Starting from the earliest times of the Greek physicians (Alcmaeon, Euryphone, Herodicus, Hippocrates), medicine has always been intimately connected with religious doctrines and superstitions, later with philosophy and psychology, finally with science (chemistry and physics). Medicine has never been and cannot be a handicraft or a limited knowledge of special technical methods. In a city where Sigmund Freud demonstrated the far-reaching influence of psychic agents in health and illness, and in a medical school, where the psychiatrist, Wagner-Jauregg searched for and found the successful treatment of a heretofore untreatable disease far beyond the narrow limits of psychiatry, it is not to be wondered at that Neuburger must always have been guided by this idea: Medicine and its history can only be studied by taking into consideration its connection with the contemporary "motifs" and scientific tendencies. History of philosophy has justly been called philosophy of history. History of science, as Wavell demonstrated, is history of culture. History of medicine is history of religion, philosophy and science together.

Neuburger's lifework comprises, in the broadest sense, the history of medicine from Harvey to Laënnec, down to the pediatricians and physicians of the Viennese school. The new edition of Auenbrugger's *Inventum Novum,* by Neuburger, should not be forgotten.

When nearly six years ago I had the pleasure of meeting Neuburger in his Institute, I found him immersed, as usual, in his studies. I feel sure that he is still carrying on his work indefatigably. He never cared for the worldly ties of life. "Bene est, cui deus obtulit parca, quod sa tis est, ma nu" was not only Horace's but also Neuburger's philosophy of life. May I conclude, as an admirer and grateful pupil, with H. Diels: May your life extend far beyond the seven decades—*quod bonum faustumque sit!*

LEO HESS
Brookline, Mass.

'Ware Medical Canon

To have reached seventy-five dignified years with equanimity and distinction, to have won the respect and admiration of colleagues all over the world, and to have maintained cheerful, scholarly productiveness for fifty years, these are achievements for which the medical profession reserves its highest tribute. On his sixtieth birthday, on December 8, 1928, Professor Max Neuburger had already received such a tribute (*Internationale Beitrage zur Geschichte der Medizin,* Wein, 1928).

Among the fifty-one interesting contributions to this *Festschrift* was an interesting discussion by the beloved dean of American medical historians, Fielding Garrison, on "Dangers Besetting the Literature of Recent Medicine". With his usual literary brilliance, Garrison summarizes his point in the succinct advice of Billings, the great Librarian in the Surgeon General's library in regard to writing a medical article: "Have something to say; say it; stop when you've said it; give the paper a proper title". At the risk of showing my inability to follow this sound advice, I hope in this sincere effort at a tribute to Professor Neuburger, to add a little footnote to Garrison's article.

War terribly complicates and intensifies human activity. Missions and purposes must be accomplished

regardless. Strong wills and strong ways must be followed to win. It is one of the awful paradoxes of democracy that in order to fight successfully for it, we must frequently sacrifice some of the principles for which it stands. It is particularly discouraging to historians of science and medicine to observe the development of dictatorial methods in scientific and medical endeavor as an apparently necessary procedure in the effort to achieve victory. It is particularly disturbing to note these tendencies with respect to medical literature.

In the necessity of accomplishment, drastic methods sometimes have to be taken. The danger is that once taken they may be continued. Physicians and scientists realize fully the necessity for responsible control over medical literature. On the other hand, physicians and scientists may resent the imposition of that control if they are denied a voice in the selection of those who will exercise it.

In spite of the ease of modern communication methods, we are still conditioned by the circumstances of our growth, and we tend generally to be aware most acutely of what is immediately in our vicinity. Unless we specially try, we are not apt to think often or much of our colleagues who may be at some distance from us. We don't see them very often, we only hear from them occasionally, and we rarely have an opportunity to consider their ideas.

For those physicians, on the contrary, who associate often together in our larger centers, there is every opportunity to become well known to each other and to develop rather easily a common understanding of each other's ideas and opinions. As these tend to become reinforced in repeated conversation, there may gradually develop a "canon" of thought among such a group which may consider heretical any idea which does not fit. Such groups of neighborly scientists and physicians often constitute the editorial boards of important scientific and medical journals. Wide geographical representation on such boards is more often the exception than the rule. As a result, editorial direction tends to become canonical with little chance for the expression of ideas which may be scientifically heretical. Narrow editorial control has already seriously jeopardized freedom of opinion in more than one supposedly sound journal.

For those who have governmental responsibility in relation to medicine and science, it is easy to think first of those near at hand. Accordingly most of our scientific and medical advisory boards in the war effort are made up of the familiar group who see each other frequently within a couple of hundred miles of New York City. These brilliant leaders tend to refer frequently to each other's work, with which they are thoroughly familiar, and thus to give it considerable emphasis. Ideas from provincial colleagues with which the leaders of this group may not be so familiar, are apt to be neglected or forgotten. Perhaps this is one of the inevitable wastes of war.

There is thus a real danger in the development of a "canon" in modern scientfic and medical thought. This is an evil against which all honest scientists and physicians will struggle. Against this tendency Professor Neuburger has shown a firm and substantial opposition. That he may be spared for many years to continue his leadership for freedom of responsible scientific and medical speech is a hope in which all of us may join on this, his seventy-fifth birthday.

Chauncey D. Leake
Galveston, Texas

NEUBURGER'S OUTLINE OF A HISTORY OF CARDIOLOGY*

LINN J. BOYD
New York, N. Y.

Translator's Note

It was a pleasure and an honor to be invited to contribute a paper to the birthday celebration of an old friend and a revered medical historian, for the translator has regarded Professor Max Neuburger as a friend for more than one decade and as the outstanding medical historian of our time for more than a quarter of a century.

In conjunction with a textbook on cardiology, I intended to include a chapter on the history of heart disease. Ultimately, I abandoned this idea because a master medical historian had already performed the task much better than an amateur could. Accordingly, I have reproduced some work of Neuburger's published fifteen years ago and overlooked by many interested in this fascinating subject. It should be informative to those interested in cardiology and for the translator it represents a memory of an initial visit to Vienna, for it was an introduction to a postgraduate course in cardiology given in 1928. The paper is also published as a token of esteem and affection not only of the translator but of innumerable mutual friends who send their best wishes on this anniversary.

Linn J. Boyd

Over the oldest Vienna Clinic hovers the genius of van Swieten and de Haën and its present director has entrusted me with a glorious task: to outline by a historical sketch the major developments of cardiac pathology which reached their zenith about fifty years ago. This outline is intended to provide a background for a systematic course in diseases of the heart and blood vessels.

The past should not be unrolled merely to serve as dusty folios for an enlightened present but to show how tedious, slow, and faltering the pathway of investigation has been and, especially in cardiology, how necessary remarkable individual acuity has been in throwing a flickering light into the darkness.

If development means an unfolding from rudiments,

*From the Department of Medicine, New York Medical College,

practically nothing can be said about the development of cardiac pathology before the eighteenth century nor of cardiac diagnosis prior to the nineteenth century. What had gone before consisted merely of erratic blocks, unsuitable and unadaptable as foundation stones for systematic instruction. Individual prominent students accomplished something, but they often were unaware of each other; mutual or composite work was unknown. Moreover, the paths of theory and practice diverged so far that cardiology was a *terra incognita* for a majority of physicians even in the first half of the nineteenth century. Wunderlich depicts the lamentable situation in his handbook of pathology and therapy: "The older school, for example up to Hufeland", he says, "knew nothing about the incidence of organic cardiac alterations, so that acute heart diseases were usually treated under other names, such as nerve fever, rheumatic inflammatory fever, miliary fever, chest inflammation; when necropsy gave a direct lie to the diagnosis, usually the anatomical alteration which had not been recognized during life was attributed to a metastasis, to an inward sinking of the disease to the heart." In another place in his work, appearing in 1856, Wunderlich states that physicians of former times, as well as their contemporaries, unacquainted with physical diagnosis, overlooked innumerable instances of acute and chronic cardiac affections. The acute maladies were usually regarded as gastric, inflammatory, catarrhal, rheumatic, typhoid, or intermittent fevers, as cerebral pulmonary or pleural inflammations, as miliary fever or exanthemata which had gone inward. The chronic cardiac maladies were ascribed, with great detriment to the patient, to asthma, anomalous gout, hydrothorax, tuberculosis, hysteria, hypochondriasis, gastric, hepatic or splenic disease, the consequences of hemorrhoids, chlorosis, dropsy, spinal irritation and so forth.

In his well considered and serious philippic Wunderlich had the practice of German physicians mainly in mind; as a matter of fact, the situation was not much better in France, at least in the first quarter of the nineteenth century, as indicated by the "hemic" concept. This was directed against the pioneers of cardiac physical diagnosis and culminated in the reproach that cardiac disease was found everywhere, when such maladies were comparatively uncommon and the finer differentiation of cardiac lesions was a waste of time since therapy was of no avail in heart diseases.

The great Corvisart, who wrote a classic in which the diagnosis of cardiac diseases was based partly on percussion, expended a great deal of effort to show that heart disease was not uncommon; he said that at the bedside the liver or the stomach often was blamed as *sedes morbi* when a cardiac disease was actually present; without deeper insight and with the finality of wisdom, other cases were offhandedly proclaimed as "asthma", "dropsy", and the like.

Since the cardiac diseases were either completely or mostly unknown to the average practitioner in this epoch, otherwise so progressive, it is not surprising that this chapter was neglected in older literature; in the voluminous works of antiquity, in the Middle Ages and the early centuries after the Renaissance, it occupied a limited place, while diseases of the lungs, of the gastrointestinal tract, the febrile and nervous maladies were discussed in detail and often with surprising accuracy. The heart played an important rôle in pathology and especially in the fever doctrine, for the danger of certain infections, particularly of plagues, depended upon whether the heart was threatened and ultimately succumbed; for this, actual or presumed cardiac stimulants, the "cardiaca", were logically employed. But primary cardiac diseases apart from the exception of "palpitatio cordis" and "syncope", did not even receive theoretical consideration by a vast majority of medical observers, to say nothing of their observation at the bedside, at least until the middle of the seventeenth century.

Diseases of the heart were considered purely intuitively. Not even the limited factual material, empirically grasped, permitted observers to appreciate the very characteristic habitus or the peculiar facies of cardiac patients. Corvisart was extolled because he once made a "snap diagnosis", which ultimately proved correct, by inspecting a portrait of a patient, but this master previously had zealously conducted a host of clinical examinations and necropsies on cardiac patients—a training for clinical inspection which his contemporaries and predecessors lacked.

The pulse was palpated and appraised by the ancients with remarkable subtlety; however, this sovereign method of investigation, prior to physical diagnosis, was not pursued as energetically for the diagnosis of primary cardiac diseases as one might think. One merely deduced the amount of life energy, the resistance of the organism, the strength of its defense against noxious influences, and arranged a prognosis accordingly. Apart from rare exceptions, the pulse was not employed for the diagnosis of cardiac maladies even by leading physicians. Actually a remarkable pulse doctrine sprang up in the last half of the eighteenth century in which the dicrotic pulse was attributed to impending epistaxis, diarrhea to an intermittent pulse; the prognosis was determined by inequality of impending sweat, while peculiarities of the pulse corresponded to each organ disease; but there was complete silence on the pulse in cardiac diseases.

Any method of investigation taken over from early times could obtain actual significance and application in cardiology only when the indispensable basis, percussion and auscultation, had been discovered. A certain height must be reached by anatomy, physiology, pathology, and methods of investigation for a rational development of medical science. This truism holds for cardiology; and this branch of medicine could not proceed on the correct path prior to the discovery of the circulation of the blood in 1628. Nevertheless, more than a century elapsed after Harvey's discovery before the initial spadework was undertaken for the systematic development of cardiology. To appreciate this and to realize why fruitful empiricism and soaring speculation, otherwise so fertile among the ancients, completely failed precisely in cardiology, two factors must be explained.

First: There was the Hippocratic assertion that the firm thick texture and insensiblity of the heart precluded damage from a massive congestion of humors. This notion, falsely interpreted and dominating conceptions for centuries was interpreted to mean that the heart could not, or at least not primarily, be affected and life continue. This could be shown at the beginning of the fourteenth century, for example, by Fran-

cesco di Piedemonte's excellent Middle Ages textbooks which dealt with the possibility of primary cardiac disease. Even the increased performance of necropsies at the end of the fifteenth century failed to uproot the prevailing attitude based on the lethal nature of cardiac injuries and the dominating suggestion that if the heart, the site of body warmth, the locus of body energy, the king of organs, the sun of the microcosm, were attacked by disease, life ended.

Second: A much greater and longer lasting obstacle to progress in the recognition of cardiac diseases *per se* arose from the fact that the indirect symptoms, the diverse circulatory disturbances in different organs, were placed in the foreground of the clinical picture, while local, subjective, perceptible phenomena, such as precordial pain, palpitation, pressure sensation, heaviness, tension, constriction and the like, were given little diagnostic import; they were disregarded or held misleading. Prior to physical diagnosis the manifestations provoked in other organs by the disordered heart alone were considered; these organs were regarded as faulty without the least thought of a possible interrelationship or association with the heart being considered. Accordingly, it is easy to understand that in ancient literature the unrecognized cardiac affections figured under diverse names, as lung or liver maladies or as forms of "dropsy". The transfer of dyspnea of cardiac origin to the respiratory organs is typical. To exemplify the erroneous interpretation of local subjective symptoms, one need merely recall that in anatomy and in colloquial speech, even at present, the ancient confusion and jumbling of heart and stomach cling tenaciously. Today, the "pit of the heart" and "pit of the stomach" are synonymous and, in an entirely different sense, cardiac asthma is for the French a *mal de coeur* as well as qualmishness.

On this general basis we can now stroll through the history of cardiac pathology without prejudice, without extolling or disparaging antiquity.

The uncertainty of whether the "cardia" refers to the heart or the stomach in individual cases makes it difficult to decide what hippocratic writings may be positively considered in a history of cardiology. At least, where palpitation (palmos) is expressly stated, as in the long case report of the son of Eratolaos, one may suspect the heart, particularly since a pulsation existed between the "cartilage" and the umbilicus and refers to an epigastric pulsation. The *Hippocratic Aphorisms* stated that injuries of the heart were absolutely fatal. The technical hippocratic writings make reference to the primitive anatomy of the heart to which Aristotle, the Alexandrian Herophilus and Erasistratus had contributed. The latter described the ostia and valves. Herophilus elaborated the pulse doctrine into an extremely subtle science, but the fragmentary reports on cardiac alterations, surviving from that era, are inadequate and not always comprehensible. Likewise the *morbus cardiacus,* described variously by Celsus and a series of later writers, can be regarded as a cardiac affection only with reservations. Some believe that the autobiographical account of an attack, which seized Seneca, describes angina pectoris. Aretaeus, more than his predecessors, gave significance to cardiac pathology and, in particular, he attributes syncope to an affection of this organ. "Those dying thereon", he says, "have signs of heart disease, small weak pulse, beating and skipping of the heart." The greatest yield, however, is furnished by Galen, the second greatest physician of antiquity; beyond him the byzantine and occidental physicians of the Middle Ages scarcely advanced. Galen distinguished between dangerous cardiac wounds which perforate a ventricle and those which incompletely penetrate the heart muscle; he places the cause of sudden death after palpitation and syncope in the heart; according to him cardiac inflammation can occur and in certain cases evokes cardiogenic dyspnea and he attributes death to blocking of the pulmonary arteries. He observed a collection of fluid and tumors (ape, chicken) in the pericardial cavity and assumed that similar alterations which impaired cardiac activity also occurred in man. Benivieni and Harvey, like Galen, described traumatic suppuration of the chest wall with exposure of the heart.

Among the Arabian physicians, indeed, out of all writers of the Middle Ages, Avenzoar, living in the twelfth century, deserves mention. He distinguished between primary and sympathetic cardiac affections, those of the left and right ventricle, adopted the conception of cardiac inflammation and abscess, of mediastinitis, and attributed *malum cardiacum,* at least in part, to psychic factors. Like Galen he also mentions serous collection in the pericardial cavity and refers to coagulated fluids (the pseudomembranes) and to cartilage.

From the middle of the fifteenth to the last part of the sixteenth century, collective writings were published reporting an increasing number of cardiac findings at necropsy, although the host of observations were not assimilated. Truth was interwoven with error and fantastic or superstitious interpretations of cadaver findings were published. What happened, and it is essential, was the absence of any application of facts discovered at postmortem to observations at the bedside; a beginning correlation between diagnosis and pathology is scarcely discernible. Nevertheless, the best minds, at least, were inclined to assume the existence of primary cardiac maladies and, among others alluded to polypoid clots, dilatation of the ventricle and auricle, anomalies of position, injuries, inflammation, abscess of the heart, serous and purulent pericardial effusions, concretions in and on the heart, and so forth. Fernelius was the first to advance the term aneurysm in the sense of arterial dilatation and distinguished between true and false aneurysms. The reformer of anatomy, Vesalius, was the first to diagnose aortic aneurysm in vivo and he reported a case in which an intermittent pulse and gangrene of the left lower extremity followed a cardiac malady.

The nature of cardiac diseases should be sought in circulatory disturbances, and in the use of mechanical devices to obtain a proper conception of these phenomena lies the main key to the recognition of cardiac maladies. This was appreciated only when Harvey's fundamental discovery provided light to dispel the darkness of centuries. It required, however, several more decades to bring Harvey's opponents to silence and progress was slow. Actually, subsequent progress in the recognition of cardiac diseases was more tedious and belated than one would presume.

Harvey carries the least blame for this delay. Although pathology did not fall in his field as an author,

he made single observations, for example, rupture of the left ventricle as well as exposure of the heart by rib caries; he also described symptoms, perceptible in vivo, in a patient with *cor bovinum* and markedly widened aorta. Far in advance of his time, Harvey was the first to recognize the spread of infection by the circulation, a noteworthy achievement for all pathology. In the fifth chapter of *De Motu Cordis et Sanguinis in Animalibus* is the statement that during systole the "cardiac pulse" is perceptible not only to the hand but to the ear: *pulsum fieri et exaudiri in pectore contingit*. This was not disregarded by his contemporaries, but instead of leading to the establishment of auscultation it provoked sarcastic remarks like that of a physician living in Rome: the ear may perceive noises in the heart in London but in Italy hearing is not so acute.

In the seventeenth century cadavers furnished equally interesting findings of heart, pericardium and blood vessel disease; particularly noteworthy are examples of calcification of the aorta, the pulmonary, and the coronary arteries. A collection of such observations is found, for example, in Bonet's *Sepulcretum*. By and large, however, there is not much advance over the earlier, somewhat unreliable, often erroneous and curious interpretations. Indeed, the frequent discovery of blood clots in the heart and great vessels led to the fateful development of a morbid concept of "polypus cordis", cardiac polyp, which henceforth played an important rôle in cardiology since it was regarded as an independent malady with a peculiar symptomatology. During his life Morgagni denounced those who placed all possible maladies at the door of polyps and he took to task those who regarded cardiac polyps as the cause of death in people slain or poisoned. Even in the seventeenth century rash assumptions prevailed and Kerckring, a physician in Amsterdam, in particular, objected to the allegations about cardiac polyps and called them agonal or postmortem phenomena.

In the medical handbooks and in the rare special volumes on cardiology, humoral theories always predominated over anatomical thinking; palpitation and syncope alone were regarded as cardiac maladies, while cardiac inflammation and abscess, pericardial inflammation and effusion, narrowing of the arteries and the like received mere etiological notice.

Nevertheless, signs of oncoming progress were not completely absent. In the first decades of the seventeenth century, Baroletti made cardiac diseases largely responsible for the pathogenesis of dyspnea. Soon after the beginning of the second half of the century, Lower, who wrote a most meritorious volume on cardiac anatomy, stated, and showed by animal experimentation for the first time, that stasis edema could be produced by transudation. Prior to this, it had been assumed that dropsy was always produced by tearing of lymphatics. Lower produced it by the application of ligatures to the large veins of dogs, and threw great light on the genesis of this important circulatory disturbance. He also made pertinent remarks on pericardial effusions secondary to venous stasis and described adhesive pericarditis. It is interesting that Stalpaart van der Wiel thought he heard the movement of water collected within the pericardium (presumably cardiac sounds) —a hint of auscultation. Finally, in reference to a theory of respiration, the distinguished English physiologist, Mayow, discussed a case which would at present be designated mitral insufficiency; he noted the hypertrophy of the right ventricle and expressly attributed the hypertrophy to work (1669). The first decenniums of the eighteenth century opened an era in which the progressive development of cardiology received new impetus although it was joined at first only by a few students (Lancisi, Vieussens, Albertini, Valsalva, Morgagni and Senac).

For the majority of contemporaries their studies were sterile, since extreme stubbornness existed in regard to cardiac affections; in ignorance they placed these disorders beyond the pale of science and in the realm of the spellbound and the possessed.

To depict in detail what each of these pioneers accomplished would lead too far. Common to all is an adoption of the anatomical conception of disease, the more or less successful endeavor to explain symptoms on a mechanical basis, to obtain a point of departure for objective diagnosis from the physiology of the circulation, to discover, as far as possible, the connection between phenomena observed on the living and the findings at necropsy. If this goal was attained only in exceptional cases because of technical limitations, their descriptions of disease prove how astonishingly sharp the observation of the old masters was. From the habitus and facial expression of patients, the peculiarity of position, the type of respiratory complaints, the state of the pulse, the behavior of the apical impulse, the engorgement of the jugular veins and some other currently less esteemed circumstances, they drew conclusions which are astonishing to the modern physician.

Throughout the entire eighteenth century and thereafter, cardiac enlargement, for which Baillou had coined the term "aneurysma cordis", was regarded as the most important and widespread cardiac disease; alterations of valves was somewhat in the background.

In his work on sudden death, Lancisi (1707) mentions in addition to other causes of heart disease, dilatation (aneurysma cordis) and hypertrophy (*nimis aucta moles*); in his chief and posthumous work, *De motu cordis et aneurysmatibus,* he includes dilatation with thinning of the wall as well as that associated with hypertrophy under "cardiac aneurysm". The "aneurysm" of the heart, produced by continuous obstruction to blood movement, was the result of mental excitement, severe exertion, arterial and valvular disease, narrowing of the ostia, asthma and chronic lung catarrh; the syphilitic, hypochondriacal, hysterical, and alcoholic subject was predisposed. According to Lancisi undulation of the jugular veins was a most important sign of dilatation of the right ventricle which he expressly attributed to incompetence of the tricuspid valve. A contemporary of Lancisi and professor at Montpellier, Vieussens, furnished much less pathological material in his publication on the heart (1715) but provided some masterly case reports of stenosis of the left ostium venosum with hypertrophy and dilatation of the right heart; they were held responsible for the stasis (edema of the feet). Moreover, Vieussen was the first to describe aortic regurgitation distinctly, its adverse effect on circulation, and thereby the full and hard pulse associated with it. He devoted considerable attention to hydropericardium which he often diagnosed during life; he found pericardial adhesions frequently in the course of his necropsies.

The earliest attempt at a differential diagnosis of the known cardiac maladies was made by Albertini who published a report in 1748 but read it at the Academy at Bologna in 1726. In addition to the radial pulse, the behavior of the carotids and jugular veins, respiration, the subjective sensations, and the position of the patient during sleep, Albertini gave an important place to manual investigation of the precordial area; he was particularly interested in the extent of the cardiac pulsation on the thorax. As basic forms of cardiac disease, he distinguished the aneurysmal, the form of cardiac hypertrophy associated with dilatation, and the varicose, dilatation without hypertrophy. The first occurs primarily in the left auricle and ventricle, in the aorta or the entire heart, and is betrayed by the palpable thrill and impact in the precordial area; the second involves the right heart principally and is distinguished with difficulty from pericardial affections, which likewise present weak and indistinct beats. As his pupil Morgagni reported, Albertini occasionally made diagnoses of surprising accuracy by his method of examination and per exclusionem; nevertheless, he was far from believing that he had established "distincta signa diagnostica". It is noteworthy that he attributed the dyspnea of cardiac patients to pulmonary engorgement and he sharply distinguished pleural effusions (hydrops thoracis) from pulmonary edema (hydrops pulmonum). With Valsalva, whose excellent observations on heart disease were valued by Morgagni, Albertini recommended a forty-day rest and hunger cure in aneurysms, a venesection or warm hand baths in dyspnea, and mild roborantia with a diet of easily digested but strengthening foods in other cases.

The publication of Senac (Paris, 1749) depicted the diseases of the heart in a detailed and systematic way and remained the standard until the time of Corvisart. It contains numerous interesting observations in careful arrangement, treats the existing statistics with some objectivity, stresses inflammation of the heart and pericardium and draws attention to the respiratory manifestations of cardiac origin. In diagnosis Senac did not equal Albertini, for he could not confirm pathognomonic symptoms of pericardial effusion described by the latter; however, he added cardiac bulging to the symptoms of aneurysms. A real *mare magnum* for the pathological anatomy of the heart is formed by several extracts in Morgagni's fundamental work, *De sedibus et causis morborum*. Many items reveal that Morgagni had a clear insight into the alterations which cardiac affections provoke in the organism; the vital disturbances from pericardial effusions, after pericardial adhesions, in cardiac hypertrophy, aortic aneurysm and the like are briefly but superlatively depicted. Morgagni attributes the true jugular venous pulse to ventricular contraction; he assigns congenital cyanosis less to the intermixture of arterial and venous blood than to passive congestion in the venous system. In the etiology of cardiac diseases, occupation was not overlooked (for example, drivers and horsemen), just as syphilis, first mentioned by Lancisi was noted.

Real progress of the eighteenth century is found in Hale's attempt to determine the hydrostatics of blood (1733), Galeazii's description of partial cardiac aneurysm (cardiac aneurysm in the modern sense, 1757), Heberden's description of angina pectoris (1768), Withering's introduction of digitalis into medicine (1785). For the further development of cardiology, percussion which Auenbrugger made known in 1761 above all others was destined to have significance.

In *Novum Inventum*, Auenbrugger noted the great area over which the dull sound was audible in some cardiac affections, but it remained for Corvisart first to employ the new method of Auenbrugger systematically, for the diagnosis of cardiac and vascular diseases. Corvisart's work, *Essai sur les maladies et les lesions organiques du cocur et de gros vaisseaux*, which appeared in 1806, is a masterpiece of careful study.

In the introduction Corvisart stresses the frequent appearance of organic cardiac diseases, the term itself is his, and he discusses the influence of heredity, constitution, disposition, occupation and mode of life, trauma, poisons, illness and so forth on their development. In serial arrangement the lesions of the pericardium, of the heart muscle, of the fibrotendinous parts, the affections which involve several tissues simultaneously, and finally aortic aneurysms are discussed and conclusions on the causes, symptoms, the course, the prognosis and therapy follow; all remarks depend upon years of clinical observation and indefatigable pathological investigation. Much more sharply than his predecessors, Corvisart described and distinguished the various forms of pericarditis from hydrops pericardii. In a manner, somewhat inappropriate, he differentiates between active and passive cardiac aneurysm, that is, dilatation with and without hypertrophy (of the entire organ, the auricles, the ventricles); he alludes, at least, to interstitial myocarditis and describes at length the pathological alteration of the valves and ostia and their consequences. Future observers added but little to his conception of the symptom complex of aortic aneurysm. Individual case histories reveal how extensively Corvisart utilized inspection, palpation, and percussion; he knew and appreciated the palpable thrills (subsequently called *fremissement cataire*, by Laennec) in ostial stenosis. Despite great merit, especially in respect to the symptomatology and diagnosis of valvular affections, the limitations of methods appear clearly and we owe their development to Corvisart's genial pupil, Laennec. Occasionally Corvisart applied his ear to the chest of patients to hear the heart sounds but he did not go beyond this; therefore, his work on the heart stands at the end of an epoch, while the discovery and introduction of auscultation opened an entirely new era.

Laennec's masterpiece, *De l'auscultation mediate*, first appeared in 1819, and, even at present, is worthy of reading for the clinical descriptions recorded in it; but it would be an error if his accomplishments in cardiology were placed alongside of his contributions to the diseases of the chest. Laennec did not go much farther than Corvisart although he has, among other honors, that of utilizing the stethoscope extensively and in a remarkable manner for the diagnosis of cardiac diseases. However, it was mainly his pupils, the French and other followers of the great Breton, who deserve credit for placing the diagnosis of these diseases on a higher plane and for giving a certain degree of reliability to diagnosis by auscultation. Laennec endeavored to discover pathognomonic signs of the indi-

vidual affections but without an adequate physical basis often he surprises by the observation of rare pathological findings, for example, pneumopericardium; yet he regarded inflammation of the "inner membrane", the endocardium, as extremely uncommon; although he recognized valvular lesions *intra vitam* a few times, he did succeed in localizing individual valvular lesions.

The further development of cardiology on the basis of the physical diagnosis created by Corvisart-Laennec and with the aid of pathological and experimental investigation is revealed in the abundant literature of the half century after the death of the discoverer of the stethoscope (1826). Of the many writers and of the many achievements only a small fraction can be mentioned in this place and then only as examples.

Some French authors, up to the middle of the nineteenth century, are Andral, Bouillaud, Piorry, Gendrin, Aran, Beau among others. Bertin founded the notion of eccentric and concentric hypertrophy. Collin described the pericardial friction sound, Bouillaud emphasized, although he was not the first, endocarditis and the connection of the rheumatic arthritis with cardiac maladies; Fauvel drew attention to the presystolic murmur in mitral stenosis, and Beau elaborated the conception of asystole.

British authors deserving mention are Allan, Burns, Williams, Hope, Latham, Walshe, Stokes of the same period. Hope was concerned with the precise differentiation of the valvular lesions, the explanation of murmurs, and the theory of cardiac asthma. To Corrigan belongs the idea of aortic regurgitation as an independent disorder whose symptoms were outlined although not originally by him. Stokes' work on cardiac diseases is of permanent importance in many respects; he drew attention to cardiac failure, to "weakened heart", and stated that the key to pathology of the heart would be found in the vital and anatomical situation of the myocardial fibers. His name also lives in the term, Adams-Stokes disease.

Single German authors of the first three decades of the eighteenth century have recently and correctly gained attention. Kreysig, the Dresden professor, published a rich mine of excellent observations in his comprehensive work on diseases of the heart (1814-1817). The Germans caught up with and then surpassed the French and English in accomplishments of real significance several years later, after the 1840's. The great advance though belated is primarily and chiefly the honor of the second Vienna school, of Rokitansky, Skoda and their collaborators. Here it is necessary to refer in a little more detail to the pioneer and creative work of Skoda. His works indicate the beginning of a new system of diagnosis which prevailed almost exclusively until recently. On the occasion of the one hundredth anniversary of his birthday (1905) Schrötter concluded his reflections with the statement: "All in all, one can say that at present we have not progressed essentially beyond his conceptions in the diagnosis of diseases . . . even roentgenology, by and large, has only provided confirmation of the things advocated and found by Skoda's method of investigation and only in a few cases has furnished new conclusions".

If we glance over the original works of Skoda we find that in a discussion, *Ucber den Herzstoss und die durch Herzbewegungen verursachten Töne* (1837), he laid the basis for his physical diagnosis of cardiac affections. He performed exact anatomical studies of the valves, described the events in valvular occlusion in detail and developed the theory of the apical impulse now known as that of Skoda-Gutbrod.

In 1839, he published the superlative report on pericarditis, excellent in both pathological and clinical respects; the same year witnessed the announcement of an exact method of examining the heart, the lecture on the diagnosis of the valvular lesions, and his magnum opus, *Discussion of Percussion and Auscultation,* which reached the sixth edition in 1864.

Skoda showed that rules derived from normal anatomy were scarcely applicable for investigating the morbidly affected and dilated heart whose position in the chest was altered. He gave exact precepts on how to proceed to determine, first, the position of the left ventricle, then the aortic orifice, and from these points to ascertain the status of the right ventricle. For the first time he distinguished between sounds and murmurs; previously the phase of cardiac action in which the murmur appeared had been entirely neglected. He depicted their connection with the individual cardiac orifices, differentiated stenosis from valvular regurgitation, and in this manner developed reliable diagnosis of diseases of every division of the heart. Some manifestations acutely described by Skoda were the pulsation of the neck veins, the accentuation of the second pulmonic sound, and the systolic apical retraction in pericardial adhesions.

Skoda recognized the significance of diastolic murmurs in connection with structural lesions, transient tricuspid regurgitation, the symptoms of cardiac aneurysm, cicatricial pericarditis, described many types of arrhythmia and, in an outstanding work, the stimulating and depressing influence of respiration on the heart.

The pathology of the heart and vessels was essentially expanded by Hasse and Rokitansky in particular; much later Virchow created the justly important theory of embolism not only in a mechanical but also in a microbiological sense; Traube deserves mention for his explanation of cardiac hypertrophy in Bright's disease, for a theory of cardiac asthma, and for his studies on digitalis. Bamberger's textbook of cardiac diseases, appearing in 1857, was a book which still stands in high esteem, while Friedreich's *Krankheiten des Herzens* (1862) affords the best insight into knowledge at the middle of the century. In regard to Bamberger it may be said that his book is the first scientific effort to discuss the cardiac neuroses, although in conjunction with degeneration, and to speak of "true failure" and "inadequacy of diseased myocardium against an existing obstruction".

In the subsequent decades a host of studies with the aid of refined methods, under the influence of pathological-histological, experimental pathological, and bacteriological investigations widened and deepened knowledge of cardiac maladies. There need be mentioned only the studies on the apical impulse, the development of heart sounds and pathological murmurs, and venous pulsation. Of the congenital malformations, fragmentation of the myocardium, fatty heart and fatty degeneration, syphilis of the heart, cardiac aneurysm, acute dilatation with consequent failure due to overexertion, cardiac neuroses, paradoxi-

ical pulse, hepatic pulsations, gallop rhythm need be mentioned as examples.

At the end of the epoch two factors, which attained their real place only in our time, appeared in an embryonic form. The first was the endeavor to objectify the symptomatology in the form of sphygmography by Vierordt (1854) and Marey (1863) and cardiography. The second factor, advocated by Seitz (1874) and Rosenbach (1881), directed attention away from the valvular lesions to the heart muscle itself and raised the question of functional as well as anatomical diagnosis.

What has been accomplished from this viewpoint during the last decades, favored by the remarkable progress in anatomicphysiological knowledge, by unanticipated refinement of investigative technic, will become more evident in the systematic course on cardiology than the word or pen of a historian can describe. Nevertheless, in the spiral course of development the ancients sometimes regain their position. From the bosom of the modern, the ancients acquire rebirth for a time. Precisely as prior to the stethoscope, the function of the heart muscle stands in the center of medical thinking. This is demonstrated conclusively by no less a person than Mackenzie who often has acclaimed the remarkable acuity of the old observers.

THE HISTORY OF PEDIATRICS IN VIENNA

Translation of an Article by Max Neuburger

ROBERT ROSENTHAL
St. Paul, Minn.

Translator's Note

The original paper was read at the Fifty-Fourth International *Fortbildungs-Kursus* of the Vienna medical faculty on February 11, 1935, and was published in the *Wiener medizinische Wochenschrift*, 8, 1935. Max Neuburger is without question the outstanding authority on the history of the Vienna medical school. There is scarcely a phase of this wide field which he has not enriched with his numerous and extremely thorough writings. This article, which reviews the rôle the Vienna school played in the development of modern scientific pediatrics, is an important contribution to the history of this branch of medical science.

This translation is offered as a small token of esteem to a devoted teacher and friend, Professor Max Neuburger, on the occasion of his seventy-fifth birthday.

ROBERT ROSENTHAL

In the field of pediatrics, scientific studies started later than in most branches of medicine; it also took longer in this than in other fields of the healing art to uproot ancient prejudices which originated in primitive times and were in part mystical. It was as late as the nineteenth century that pediatric literature became important. Although from ancient times great physicians did not fail to consider certain ailments of childhood in their works, and scattered pediatric monographs appeared at a relatively early date, the treatment of the sick child was only to a small extent in the hands of the physician almost up to the end of the eighteenth century. For a long time the care of children was entrusted to midwives, wetnurses, and old women. Only rarely was the necessary confidence shown in the physician, and they themselves showed no particular inclination to deal with children's diseases. The main reason for this strange attitude was, admittedly, that the examination of the little patients is particularly difficult because they cannot describe their complaints with clarity, as grownups can. Medicine lacked the objective method of examination, the physical diagnosis; in making a diagnosis the physician depended mainly upon subjective symptoms.

Not until the epoch arrived when internal medicine began to develop a more exact diagnosis and subjected therapy to a critical control, not until clinics and dispensaries were founded, was a new path opened for pediatrics. The first institution for sick children was founded by George Armstrong, in 1769, in London, and this gave the impetus for an upsurge in this long neglected field. His example was imitated in other civilized countries, and governments soon subsidized the institutions founded by magnanimous physicians, especially when very great child mortality and the preservation of progeny were recognized as extremely important tasks from the viewpoint of state and nation.

In Vienna, pediatrics did not begin to develop as an independent science, as a specialty of medical practice, until the last decades of the eighteenth century. The beginnings were small, and progress at first was extremely slow, as is illustrated clearly enough in the scant pediatric literature of the period. As late as 1807 Joseph Jacob von Plenck, the author of the first compendium on the subject to appear in Vienna, *Lehre von der Erkenntnis und Heilung der Kinderkrankheiten* [Lessons in the Recognition and Cure of the Children's Diseases], found it necessary to admonish physicians, in view of the terrifying mortality and extremely high morbidity, "to spend more care on the recognition and cure of children's diseases". But only a few years later another writer, Heinrich Xavier Boër, the author of an interesting book entitled *Versuch einer Darstellung des kindlichen Organismus in physiologisch-pathologischund therapeutischer Hinsicht* [An Attempt to Describe the Organisms of the Child in its Physiologic-Pathologic and Therapeutic Respects] (Vienna 1813), was able to state with satisfaction: "Now most physicians, and especially the younger ones, are engaging in and practicing with particular industry this part of medicine which only a few years ago was in the hands of few educated physicians or perhaps even more in those of ignorant women, and not only that, but we are already enjoying the magnificent fruits of the successful treatment of some diseases of childhood and adolescence which previously were known neither as to the name nor their real nature."

Although the great clinicians of the older Viennese

school—Van Swieten, de Haen, Stoll, and Johann Peter Frank—considered some pediatric questions and often treated certain symptom complexes, infant care, nutrition, and the education of children extensively, it was not until the beginning of the nineteenth century that a small place was made for pediatrics in the curriculum of the university. It was done in connection with obstetrical teaching and was restricted to the diseases of newborn infants. Boër and Hussian especially did important work in this field and wrote about it. As late as the end of the 1830's there was in Vienna no chair for pediatrics alone—only for diseases of women and children. (Boër qualified in 1808; Güntner in 1821; Loebisch and Weiss in 1828).

The initiative for the development of pediatrics as an independent science and specialty was given by institutions which were not connected with the university and were founded, thanks to the humanitarian ideas of the era of Emperor Joseph, during a period when interest was awakened in the welfare of the child, and in the care, placement, and treatment of sick children.

In 1784, when the *Allgemeines Krankenhaus* was founded, the orphanage also was built in Vienna. This was a welfare institution in a grand manner, unlike anything else existing on German soil. The rich material for observation that accumulated there, the abundance of clinical cases that it offered, gave an impetus to the study of pediatrics, or rather, induced physicians to give more attention to a field in which so little work had been done. Many physicians who later became famous gained the basis of their pediatric knowledge in this institution and received there much fertile stimulation. It is not too much to say that the Vienna Orphanage was the cradle of pediatrics in Austria.

Another institution which played an important rôle in the development of pediatrics was the *Wiener Kinderkrankeninstitut,* founded by Joseph Johann Mastalier in 1787. This was the earliest institution on the continent for the free treatment of poor sick children to continue to function to the present day. Mastalier devoted himself to the task of developing this institution with youthful enthusiasm and he succeeded in carrying out his plan, thanks to the charity of the population and the benevolence of persons in high positions. Not only was medical advice given in the institution, but the necessary medicaments were supplied to needy parents free of charge. In addition, the children of poor parents were visited in their homes, and were treated and supplied with medicines.

At the end of the year 1787, Mastalier published a monograph: *Uber die beste und natürlichste Art, die Säuglinge zu ernähren* [The Best and Most Natural Way of Feeding Infants] and the profits were turned over to the institution. In 1793, only a few weeks after a second edition was published with an appeal "to the noble and magnanimous inhabitants of Vienna", this able physician and philanthropist died; he had barely reached the age of thirty-six years. After his death Leopold Anton Gölis took over the supervision of the dispensary; it now became a public institution and the directing physician received the title of director. Under Gölis, who superintended the institution for thirty-three years, it flourished, and in connection with it a vaccination institute was established. During the first twenty-five years of Gölis's superintendency 130,594 children—mainly infants—were examined in the dispensary and 10,359 were vaccinated.

Gölis was justly called the founder of pediatrics in Austria; his work was not only practical and far-reaching, but it was also of a scientific nature. Based on his great clinical experience and supported by a considerable number of autopsy findings, he published a work on membranous croup (1813), *Tractatus de rite cognoscenda angina membranacea,* and started a work of great scope: *Praktische Abhandlungen über die vorzüglichen Krankheiten des Kindesalters* [Practical Treatises on the Outstanding Diseases of Childhood], of which two volumes (1813 and 1815) appeared: *Von der hitzigen Gehirnhöhlenwassersucht* [On Inflammatory Hydrocephalus] and *Vom innern Wasserkopf* [On Internal Hydrocephalus]. These works bear witness to the author's extensive knowledge of the literature and to his accomplishments in the field of differential diagnosis. The clinical descriptions are excellent and the attempts to clear up the etiology are praiseworthy. In 1811, Gölis published his *Vorschläge für Verbesserung der körperlichen Kindererziehung in den ersten Lebensperioden* [Suggestions for the Improvement of Physical Education during the Earliest Periods of Life], the second edition of which appeared in 1823. In this work he sharply criticizes abuses in child care and nutrition, and the parents' fear of plenty of light and air. He also describes in detail proper furnishings for the child's room, gives illustrations of a practical child's bed and a walker, and recommends in a thorough manner various kinds of utensils and clothes for children of every age. The natural nutrition of the infant from the mother's breast is particularly praised. It should be mentioned that the prescriptions in use at the children's dispensary (the Gölis prescriptions) were in great favor in pediatrics during the first half of the century.

That the fame of the Vienna dispensary penetrated into other countries is proved by the fact that visits by foreign physicians were no rarity. Some, like the younger Osiander, Ringeis, and the district physician (*Kreisphysikus*) Brosius, who visited there a whole year, wrote about it in their travel memoirs. Brosius expressed regret that the institution was not equipped for clinical education and that the space provided could not accommodate an audience, because the director, two assistants, six to eight young physicians, and the patients to be examined, entirely filled the consultation room. "How many more good pediatricians could be educated here", he asks, "with the enormous number of diseases that appear here, of which even the rarest is seen several times a year"? He also comments on the deep understanding and cleverness of the director in the difficult and poorly known field of pediatrics, which won his and his friends' admiration.

For half a century the public *Kinderkrankeninstitut* remained the only institution for the free treatment of poor sick children in Vienna, with the exception of a similar institution founded by Dr. Mükisch (1826) which existed for only a short time. Not until 1837 did a change come about which caused a reduction in the number of visits at the *Kinderkrankeninstitut.* In this year the first children's hospital was founded, and it was followed in a relatively short time by other pediatric institutions.

A former army surgeon (*Regimentsarzt*), Dr. Ludwig Wilhelm Mauthner, an unusually gifted and philanthropic man, opened, at his own expense, with the permission of the authorities, a children's hospital in rented rooms at Kaiserstrasse No. 26 in the suburb of Schottenfeld, which at the time was very populous. The hospital had twelve beds and was connected with a dispensary. This institution—the first of its kind in Austria and Germany and the third in Europe—was officially opened on August 26, 1837. (The first children's hospital was the *Hôpital des enfants malades* established in Paris in 1802, and the second, the Nicolai Children's Hospital, founded in St. Petersburg in 1834).

With the help of an assistant physician, Mauthner made daily rounds in the morning and afternoon, and the observations made at the sick beds were recorded. The assistant had to write the case histories, take care of the pharmacy, and substitute in the absence of the superintendent. In order to give several young physicians the opportunity of training in the field of children's diseases, the assistant was changed each year. A dispensary clinic, which soon became a tremendous attraction, was held from three to five each afternoon. Physicians from Austria, as well as from abroad, often attended extension courses at the hospital. Pathological anatomical dissections were carefully carried out and interesting specimens were give to the Josephinian Academy for safekeeping after drawings had been made by artists who attended the autopsy. In 1842 the Mauthner hospital was taken over by a benevolent society, and during the years 1847 and 1848 it was gradually transferred to the neighborhood of the suburb of Hernals, where it was given its own building and named the St. Anna-Kinderspital.

The reputation of the Mauthner Hospital was considerably improved because a training school for children's nurses was connected with it. Its greatest importance in the development of pediatrics, however, is derived from its founder's teachings, which began as early as 1839. Mauthner qualified in that year, and in 1844 he obtained the permission of the state to use the patients as material for his lectures; in 1850 his already existing clinic at the St. Anna Children's Hospital was elevated to a teaching institute belonging to the university. Of the fifty beds of the hospital, twenty located in two rooms were considered a separate clinical unit, and in addition the superintendent was given the right to choose appropriate cases for teaching purposes from other departments. In 1851 Mauthner was made extraordinary professor of pediatrics. The *Erste Jahresbericht über die wissenschaftlichen Leistungen der k. k. Klinik für Kinderkrankheiten im St. Anna-Kinderspital im Jahre 1850/51* [First Yearly Report of the Scientific Work of the K. K. Clinic for Children's Diseases in the St. Anna Children's Hospital in the Year 1850/51] Vienna, 1850) gives us information about his activities. Mauthner enjoyed the reputation of being an excellent practitioner and a clinician who was aglow with therapeutic energy. The personality and trend of thought of this noble physician are indicated by his expression: "There is nothing more pleasant than to help children."

Besides numerous articles, published especially in the *Oesterreichische Zeitschrift für Kinderheilkunde*, which he edited with Kraus in 1855-56, he wrote on the diseases of the brain and spinal cord in children. He also published a *Kinder-Diätetik*, a work filled with real humanitarianism, noble in thought, artistic, and finished in form; it appeared in three editions and also was translated into French.

After Mauthner's death (1858) Franz Mayer took over the chair and the clinic. His didactic and literary work fitted splendidly into the frame of the Vienna school, so that young physicians from Austria as well as from abroad visited the clinic in increasing numbers. Mayer, who had been assistant physician (*Sekundararzt*) since 1845, and superintendent of the *St. Joseph Kinderspital* since 1846, became extraordinary professor of pediatrics in 1858. He might be called the real founder of clinical pediatrics in Vienna, and he did particularly good work in semeiotics and descriptions of symptoms of diseases. He wrote on the skin diseases of children, scarlet fever, measles, hereditary syphilis, etc., and he published directions for a natural and sensible *Kinderpflege* [Care of the Child] (1840). Acting upon a suggestion of Clar at the thirty-second congress of German physicians and natural scientists, Mayer founded the *Jahrbuch für Kinderheilkunde* and published in it a series of articles. Mayer, who attracted splendid followers, died early—in his forty-ninth year (1863). During a long illness his teaching position and his extensive practice also were taken over by Hermann Widerhofer, a close friend.

As the growing pediatric literature proves, physicians other than those connected with Mauthner's hospital and the St. Anna-Children's Hospital participated in the scientific work. Particularly active were the successors of Gölis as superintendents of the *Kinderkrankeninstitut*. Löbisch, who qualified in 1828 in women's and children's diseases, took over the directorship of the institution in 1832 and became extraordinary professor in 1851. He published *Allgemeine Anleitung zum Kinder Krankenexamen* [General Suggestions for the Examination of Sick Children] (1832); *Studien zur Kinderheilkunde* [Studies in Pediatrics] (2nd ed., 1852), and *Die Seele des Kindes und ihre Entwicklung* [The Soul of the Child and Its Development] (1851; 2nd ed., 1854). Löbisch believed that the pediatrician must not only master the usual methods of examination, but must pay particular attention to the physiognomy of the sick and healthy child. The physiognomy is, he contends, the mirror of the soul of the child, and from changes in its normal picture one can reach conclusions as to the presence of organic diseases and ailments of certain organs. The book on the soul of the child is one of the first works in the field of child research, and is based on observations which Löbisch made on numerous children. Many a feature of modern psychology is foreshadowed in this work.

Of importance also is the work of F. Liharzik, *Ueber die Gesetze des menschlichen Wachstums* [On the Laws of Human Growth] (1858), which was based on the material gathered during ten years of research in the *Kinderkrankeninstitut*. In this early work, the great importance of the constitution for growth and development of the external form of the human body, as well as for the disposition toward various diseases, is stressed. Leopold Politzer, who received his pediatric training as an assistant of Mauthner, took over the *Kinderkrankeninstitut* in 1853, and under him again it flourished. Politzer enriched the

literature by a great number of publications. His outstanding works are: *Die Entstehung der Gefahr im Krankheitsverlaufe* [The Development of Danger in the Course of a Disease] and *Ueber den Bronchialkrampf im Kindesalter* [On Bronchial Spasm in Childhood]. Among Politzer's important contributions were his pointing out to physicians a considerable number of facts in the symptomatology of childhood, and his trying to do away with pediatric "old women's therapy". After qualifying in 1858, for years he gave lectures, and in 1877 he was given the title of professor.

Out of the Vienna Orphanage, where there were an unequaled number of clinical cases and the opportunity for comparison with autopsy findings, came the writings of Bednar, who worked there as chief of staff (*Primararzt*). Bednar was the main representative of the anatomical trend in the pediatric clinic, working in the manner of Billard, who in 1828 created the first system of childhood diseases built upon a pathological-anatomical basis. In spite of his excellent results, like the latter, he became a victim of overestimation of the anatomical changes. Bednar left three very interesting works: *Krankheiten der Neugeborenen und Säuglinge vom klinischen und pathologisch-anatomischen Standpunkte bearbeitet* [Diseases of the Newborn and Infants Treated from a Clinical and Pathological-anatomical Standpoint] (1850-1853), in four parts; *Lehrbuch der Kinderkrankheiten* [Textbook of the Diseases of Children] (1856) and *Kinderdiätetik* (1857). The classical description of the aphthæ which were named for him to be found in the first part of the first-mentioned work. In the introduction of his textbook of pediatrics, Bednar fights the tendency to bring about the socalled crises by force by means of cutaneous stimuli, emetics and purgatives, sudorific and diuretic remedies, blood-lettings, etc.; he decries the lack of a scientific therapy and emphasizes the great importance of individuality, constitution of the body, heredity, and mode of life. The third work, the *Kinderdiätetik*, was meant for physicians as well as for mothers, and in it the author tried to combat the prevalent injurious prejudices. The first five chapters deal exclusively with the natural, correct and incorrect feeding, nursing, artificial feeding, weaning, and feeding during later childhood. The remaining eleven chapters deal with various questions such as heredity, hardening, influence of the seasons, etc. The author sharply contradicts erroneous ideas among the laity regarding child care ideas which frequently prevail not only among the poor, but also among the more prosperous classes. He also speaks against the socalled *Volksbücher* [popular books] on children's diseases, and adds correctly, "One should not popularize the teaching of disease, but the teachings of health."

As far as the popular pediatric literature is concerned, one should not omit pointing out that the *Oesterreichische Gesundheitszeitung* of the 1830's, which was founded by Bastler, contains very remarkable articles on the hygiene of childhood and on children's diseases.

The first children's hospital in Vienna was followed in a relatively short time by other pediatric institutions. *St. Josephs-Kinderspital* was founded in 1842 at the suggestion of Alexovits, a physician for the poor in the district *Auf der Wieden*. Alexovits—according to contemporary reports—is said to have adhered mainly to expectant therapy, in contrast to Mauthner. In 1848, Franz Hügl, a popular pediatrician, became director of this hospital. He produced several writings which are important for the history of the children's hospitals and orphanages of Europe. The children's hospital, *Auf der Wieden*, was followed by the children's hospital in the Leopoldstadt, the *Kronprinz Rudolph-Kinderspital* and the *Karolinen-Kinderspital*. The staffs of physicians of both of the latter were active not only in practice, but also in research.

It can be understood that the active scientific life caused a number of controversies which occasionally led to sharp polemics. It remained for Hermann Widerhofer, the successor of Mayer, and third director of the Vienna Pediatric Clinic, to bring about a peaceful settlement. He was particularly fit for it, thanks to his disposition, and because he had gained the necessary authority by his experience and his position.

As assistant physician (*Sekundararzt*) in the Vienna orphanage after 1856, Widerhofer had received much fertile stimulation; in 1859 he became extraordinary, and in 1884 ordinary, professor of pediatrics. Under his leadership the Vienna pediatric school gained the leading position in German pediatrics—it even became the center of education and the favorite meeting place for all who wanted to be active in the scientific study of pediatrics. For almost forty years Widerhofer acted as teacher, not only for students, but also for many physicians from abroad. The great attraction of the Vienna children's clinic was due, not only to the extensive material for observation, but to the extremely stimulating method of teaching which was fitted to the needs of the practicing physicians and was limited to that which could be definitely observed. It was the modest and great personality of Widerhofer that served as an inspiration and an example of the real mission of the physician. He liked to express himself in few words, but they were to the point, and he favored simple and clear thinking; he disliked theoretical speculation and artificial therapy. After a brief examination of the patient, which immediately centered on the essential, he explained in clearcut words the characteristic findings, the probable course of the disease, and the treatment of the case. His strength lay in the physical examination, in the prompt recognition of the phenomena necessary to come to a conclusion about the case, and in the capacity to fit these phenomena together into a well-rounded picture of the disease. As to treatment, he placed the main weight upon diet and hygiene; the ordering of long prescriptions was restricted.

Like most clinicians of Vienna's most brilliant epoch, Widerhofer was not a prolific writer, but what little he published is of permanent value. His published works include a series of reports, an excellent work on the diseases of the navel, and essays (in Gerhardt's *System of Pediatrics*) on diseases of the stomach and intestines, and on the diseases of the bronchial glands. Up to the publication of Widerhofer's essays, there was no usable systematic work on gastrointestinal diseases, at least not in infants. His system, based on pathological anatomy, divided the diseases according to their location in the stomach, the small intestine, and the large intestine, and it noted the characteristic clinical signs for the diseases of each portion. Widerhofer considered the enteritis follicularis as a contagious disease of the colon, and he drew a masterful description of the clin-

ical picture of cholera infantum and its complications. It is particularly noteworthy that he did not make the mistake of overestimating the anatomical changes. Where such changes were absent he created the idea of the functional disturbance of dyspepsia, and this became the basis of the modern teaching of nutritional disturbances. As far as the essay on the diseases of the bronchial glands is concerned, it shows unusually deep research into the complicated anatomical conditions, and it proves that Widerhofer was the first to understand the importance of their tuberculous affections.

At the *Allgemeine Poliklinik* the pediatric department was successfully superintended by a pupil of Widerhofer, Alois Monti, who did important work in the practical diagnosis and therapy of children's diseases and inaugurated the extended treatment of scrofulosis. It was another pupil of Widerhofer, Früwald, who acted as chief of a department for children's diseases at the *Polikinik*. His scientific works dealt mainly with clinical and therapeutic questions; he also wrote a textbook on children's diseases which was based on vast experience. And finally, it was also a pupil of Widerhofer, Andreas Hüttenbrenner who took over the directorship of the *Karolinen-Kinderspital*, which had been opened in 1879. Besides pathological-anatomical and pediatric articles in periodicals, he was the author of a textbook on children's diseases.

The first public institution for sick children went through a great development under Kassowitz, who became director in 1882 and an enlargement of the institute became a necessity. A whole series of scientific publications emerged from this cradle of pediatrics. Kassowitz studied the physiology and pathology of the growth of the bones of children and introduced the phosphorus cod liver oil treatment of rickets. He has described the rich results of his research in numerous publications. He also worked intensively on the clinical study of acute and chronic infections, as well as on the question of heredity of lues.

Escherich was called to Vienna after Widerhofer's death in 1902. From 1890 he had been chief of the Children's Clinic in Graz, where he had founded a well-known school and had done not only research work, but had been very successful as an organizer. In Vienna he developed beside Heubner and Czerny to an undisputed leadership in German pediatrics. Escherich believed that pediatrics consisted not only of research and the cure of diseases, but also of prophylactic work. There is no phase of pediatrics in which he did not show an interest; the number of his publications amounts to almost two hundred.

In particular, his bacteriological studies, which began with the classical work on the intestinal flora of the infant, laid the foundations and pointed the direction for further work. We have to thank him for the discovery of the Bacterium coli commune. Escherich gave the impetus not only for numerous works on the bacteriology of the feces, but also to important clinical researches which brought about the discovery of certain children's diseases. The discovery of colicystitis and Streptococcus enteritis of infants is exclusively the result of Escherich's researches. Of importance are also his researches relating to diphtheria, both in the fields of bacteriology and serum therapy. Escherich proved that during the spontaneous cure of diphtheria, true antitoxins are formed in children as well as adults; and he showed further that passive immunization by means of oral or rectal serum administration is impossible, and that it is produced only parenterally. In several writings he deals with tetany, the parathyroid etiology of which he recognized early.

In the field of infant feeding his scientific trends moved in three directions, which must be differentiated from one another. Escherich's bacteriological talents found particular expression in his works on the disinfecting treatment of gastrointestinal diseases of infancy, on the sterilization of milk, etc. Among the chemical researches were those on the coagulation of milk and on the digestion of milk in the stomach. The volumetric method, which became common knowledge to all physicians, goes back to Escherich, who determined the normal amounts of feedings by weighing thriving breast-fed babies before and after nursing. During the last period of his activity, he undertook with much energy the study of clinical tuberculosis, which was brought into the field of pediatric research by the work at his clinic of von Pirquet and Hamburger. With his name is connected *Escherich's Stichreaktion*.

Escherich was an excellent teacher and was greatly interested in the scientific works of his assistants, Moro-Hamburger, von Pirquet, Schick, Moser, Jehle, von Reuss, and others. In the *St. Anna Kinderspital*, which Escherich sought to modernize and remodel according to new precepts of hygiene, he built laboratories and a model infant department, and he established a school for the training of nurses in infant care. He founded the *Säuglingsschutz*, a society for the protection of infants, and for the purpose of supplying poor mothers with safe milk for their children; he worked on the question of school physicians, and he helped to found a society for child research, which was to encourage the complete cooperation of physicians and pedagogues. He also used his influence to bring about a state institute for the care of mothers and infants. One of his great organizing achievements was the founding of a Vienna pediatric society as a center for the exchange of scientific ideas. The new *Kinderklinik* was built after Escherich's plans. He died in 1911.

Von Pirquet, who succeeded Escherich, had worked as *Privatdozent* in pediatrics in Vienna and as a professor in Baltimore and in Breslau. He arranged and furnished the *Kinderklinik* on a grand scale, and he trained excellent pediatricians and nurses. His work for the American Aid to Children, which he organized in the postwar period, is unforgettable. Of his practical works, his most important achievement is the skin test for tuberculosis, which he invented. As a result, the diagnosis of tuberculosis made undreamed-of progress. The Pirquet test (1907) became common knowledge to all physicians. Recognizing the fact that undernourishment is the most prevalent reason for the spread of tuberculosis in the human organism, Pirquet devoted a great portion of his life work to the problems of nutrition, and he put a nutritional system, the Nem system, which he invented, on a rational basis. Very early he published important scientific works of permanent value in the fields of bacteriology and immunity. To this group belongs *Die Serumkrankheit* [The Serum Disease] (with Schick, 1905). His most important scientific achievement was the discovery of allergy, which contributes to the understanding of many illnesses. Pirquet's teachings of allergy were particularly

important because they helped to explain relapses of various contagious diseases, changes of the incubation period in cases of reinfection, and many idiosyncrasies. During his last years, Pirquet worked on biometric studies and also constructed a widely-used measure for the determination of the nutritional state of the child. He founded the Austrian Society for National Hygiene, and was called to Geneva to head the committee for infant care of the League of Nations. Pirquet enjoyed an international reputation; his clinic—a model hospital and institution for teaching and research—exerted an irresistible attraction for physicians and students in all countries.

At the threshold of the twentieth century, pediatrics had reached a height of which the very modest beginning gave no inkling. From a field in medicine which was given very little attention, a specialty had developed inferior to none in its scientific importance. Its progress had not been easy, for it was particularly hampered by limited external, and therefore unfavorable, conditions for observations. The *paediatria sentimentale*, as it was called by the Italian Mya, of past centuries had to be overcome. It was based on indefinite sensations, uncontrolled empiricism, or at best on the intuition of a genius, and therefore first the semeiotics and clinical phases and characteristic pictures of diseases had to be outlined and worked out. This was done under the precise control of pathological anatomy. By this trend of research the quick diagnostic orientation was more advanced than the pathogenic understanding. If it was not to drop to the level of mere routine pediatrics had to join the new trend of internal medicine; that is, it had to draw into its use as far as possible the physical and chemical methods of research.

The penetration of the new spirit, the introduction of the methods of natural history into the clinical work, took place gradually in the field of pediatrics. Then came the desire to study the symptoms of diseases, not only in their mutual relations, but by considering the physiological conditions on which they are based and the pathogenic causes, and further to analyze them by exact measuring methods. The systematic exploration of the organism of the child was studied in its reactions toward noxious influences and disturbances of its mechanism. Pediatrics and internal medicine had found common ground in the problem of the exploration of the processes of life, which are complicated in childhood by the lack of full anatomical and functional development of organs and by processes of growth.

The historical review shows how great a part the Vienna School had in the creation and development of scientific pediatrics and to what extent the proud edifice of modern pediatrics rests on foundations laid by Vienna representatives of the specialty. To them, also, credit should be given for the fact that pediatrics has become of great social importance in our time.

LUDWIG FRANKL, VIENNESE PHYSICIAN AND PHILOSOPHER

HARRY A. SAVITZ
Boston, Mass.

Like Sir William Osler, Dr. Neuburger entered the field of medical history through his wide cultural background and keen intellectual curiosity, for primarily, he was a trained specialist in nervous diseases. But he was not satisfied merely to trace a disease through the pyramidal tracts to the cerebral hemispheres, he was equally curious to trace cultural developments to their origin. So medical history began to occupy a great deal of the economy of his thinking until he became one of the great exponents in this field. Naturally, he was equally interested in the intellectual background of each physician. Therefore, this paper on the life of a great Viennese physician and poet is dedicated to Dr. Neuburger's seventy-fifth anniversary.

Ludwig August Frankl (1810-1894)

The following is a short biography of Dr. Frankl, taken from the *Jewish Encyclopedia:*

"Ludwig August Frankl, Ritter von Hochwart, Austrian poet and writer, born at Chrast, Bohemia, February 3, 1810, died in Vienna, March 12, 1894. He received his early education at the Piarists' gymnasium of Prague and at the Piarists' college of Leitomischl, his teacher in Hebrew being Zacharias Frankel. During 1828-1837 he studied medicine at Vienna and in Italy, and received the degree of M.D. from the University of Padua. During his stay in Italy he became acquainted with Thorwaldsen, Mezzofanti, Leopardi Niccolini, and other men of renown. He practised only a short time as a physician. In 1838, upon the advice of his friend, Joseph Wertheimer, he accepted the position of secretary and archivist of the Vienna Jewish congregation. This position he held over forty years. His first poetical production, "Das Habsburglied, Historische Balladen" (Vienna, 1832), gained him an acknowledged position among Viennese writers. These patriotic songs were followed by "Episch-Lyrische Dichtungen" (Vienna, 1834); "Sagen aus dem Morgenlande" (Leipzig, 1834), an imitation of Oriental poetry, and the romantic epos "Christoforo Colombo" (Stuttgart, 1836). He translated Byron's "Parisina" (Leipzig, 1835), and "Paradise and the Peri", part of Thomas Moore's poem "Lalla Rookh" (Vienna, 1835). He was editor of the *Oesterreichisches Morgenblatt* in 1841, and published Joseph Emanuel Hilscher's poems after the latter's death. A collection of his "Dichtungen" appeared in 1840 (Leipzig), the Biblical-romantic poem "Rachel" in 1842, and "Elegien", in which he gave expression to his feelings on the unhappy condition of his Jewish brethren, likewise in 1842. At the same time he founded the *Sonntagsblätter,* one of the best literary organs in Austria. He edited it until March 1838, when it was suppressed by the government. In 1846 appeared an epos by him entitled *Don Juan de Austria* (Leipzig, 3d. ed., Prague, 1884). The Vienna Revolution of March 1848 was greeted by Frankl with the enthusiasm of an idealist.

"His poem, "Die Universität", reëchoing the liberal ideas of that great movement, was set to music by nineteen composers and circulated to the extent of five hundred thousand copies in Austria and Germany. As a member of the Students' Legion he was wounded

(October 6, 1848) in the uprising against the government. Under the title "Gusle" he published in German a collection of Servian national songs (Vienna, 1852). In the following poems, "Hippocrates und die Moderne Medizin", "Die Charlatane", "Hippocrates und die Cholera", "Medizin and Mediziner in Knittelversen", "Nach 500 Jahren; Satire zur Sakular feier der Wiener Universität", he satirized medical charlatanism. His "Zur Geschichte der Juden in Wien" appeared in Vienna in 1853. In "Der Primator" (Prague, 1861), published in many editions, he gives a touching description of the persecutions and sufferings of the Jews.

"At the request of Elise v. Herz-Lamel he went to Jerusalem (1856) and with her help founded there a Jewish school and philanthropic institution. His journeys in Asia and in Greece are vividly depicted in verse and prose, in a work of two volumes, *Nach Jerusalem* (Leipzig, 1858), which has been translated into several languages, among them Hebrew. Later he added a third volume, *Aus Aegypten* (Vienna, 1860). Frankl advocated the erection of an asylum for the blind near Vienna on an eminence called "Hohe Warte". The institution was established mainly through the generosity of Baron Jonas Von Königswarter. Through Frankl's efforts a European congress of superintendents and teachers of asylums for the blind, over which he presided, was convened at Vienna in 1873. The Schiller monument in Vienna was also the result of his initiative. On the day of its dedication, Nov. 10, 1876, the Emperor Francis Joseph, in recognition of Frankl's great services, conferred on him the hereditary title, "Ritter von Hochwart"; in 1880 Vienna honored him with the freedom of the city. In 1851 he was appointed professor of ethics at the Conservatorium der Gesellschaft der Musikfreunde of the Austrian Empire; later he became a member of the Vienna school board.

"True to the impressions of his youth, he kept in remembrance the Jewish life of his parental home, which he visited only a few weeks before his death; his feeling on that occasion found expression in a poem entitled "Chrast", his swan-song. Another of his later poems is the touching elegy which he dedicated to the memory of Adolf Fischof (March 28, 1893), a fellow patriot in the stormy days of 1848."

Ever since his youth, when he studied the holy scriptures, he had visions about the Holy Land. What he had studied in the day-time, he dreamed about in his sleep. Episodes in Jewish history, Jewish legends and folk lore form the patterns around which he has woven many a beautiful poem. One of his powerful and charming epics deals with the heroic event of Rabbi Jochanan ben Zaccai—a leading Tanna of the first century. The Talmud relates that during the siege of Jerusalem he managed to make his way out by a stratagem and presented himself before the Roman leader, from whom he obtained permission to open an academy at Jabneh. After the destruction of the Temple, this academy, owing chiefly to the esteem in which Jochanan was held, took the place of the Sanhedrin as the supreme religious authority for the Jewish people, and saved the nation from disintegration.

In fine poetic verse Dr. Frankl describes Judah's struggle for freedom—by heroes who preferred the tortures of death rather than life in chains. Then he pictures how this venerable sage and scholar steps out of his casket in which he was supposedly going to be buried, and places himself before the Roman general. The Roman conqueror sardonically laughed at the statesman's request for what appeared an insignificant favor to establish a seat of learning in Jabneh. Like one of the great physicians, Dr. Frankl discovered the vital hormone that kept his people alive for he says, "The enemy did not understand that Israel's glory is his spirit—the Torah. This is his weapon and shield. The glory of the Roman empire will crumble to earth, but, my people, by that spirit thou wilt annihilate thy enemies." Dr. Frankl's prognosis is equally prophetic. For he continues "The blood of thy saints have stained the earth everywhere, but thy strength is in God, and thy power in his law."

How revealing are these verses in our day. For on Mount Scopus, where the Roman conqueror pitched his tents, stands today the Hebrew University, Medical School and Hospital, which with thousands of Jewish volunteers, are participating in the allied effort to bring about a new freedom for the entire world.

"Little do mortals know", says Dr. Frankl, "what the morrow will bring." For several weeks after he finished the above mentioned epic, it was his destiny that he too should go to Jerusalem and establish another school in its ruins.

As a result of that long, tedious, and risky journey to Jerusalem in 1856, he published three volumes in which he described in detail the travail that went with it. As a poet these volumes are a literary contribution to the literature of travel. Each chapter is sprinkled with verse, but even his prose is in places poetic in style. For his feeling for Palestine inspired his muse and his imagination took to flight into the glorious history of the past. As he approached Jaffa he could not wait for sunrise. He went up to the captain's bridge for he said, "As the sun will rise there will appear like a carpet the Holy Land of our ancestors. A land adorned by miracles, sanctified by Holy Writ, and glorified by tales of yore * * * There were men of spirit in whom the spark of God was burning, and where prophets with the sweat of their brow preached ethical eternal truths and where kings were poets and sang their own praises to the Lord."

But as Dr. Frankl was a trained physician and keen observer, these volumes are of historical value, for he recorded everywhere he went the facts as they were, particularly in the Jewish communities he visited in every land. He gives a vivid picture of their economic life and government, as well as the number of physicians and hospitals they had. Here and there are interesting episodes which make reading enjoyable as well as instructive. For example, he tells how, mounted on his horse, he approached Jerusalem with his guide. A heavy cloud rested on the top of its towers and temples. To his poetic imagination the city appeared like an old man who had come there to kneel and pour out his prayer, and had then turned into a stone statue.

"So this is the city of the brave, the city of song and melody, the capital, the city where stood the temple of Solomon, the wisest king who ever ruled over men. It is from this city that the bright rays of the sun pierced darkness everywhere, and so the faith in one and only one God has come into being".

But as he stopped to look around, he saw only destruction and destitution everywhere. Graves upon

graves amidst the ruin of graves. Tears began to flow from his eyes as he saw some of his brethren on a pilgrimage to the Holy City. As he entered the city a man approached him and grabbed him by his coat, while holding a knife in his other hand. Dr. Frankl was frightened and was about to draw out his gun, when the man explained to him that it was an accepted custom for every Jew who visited Jerusalem to tear his clothes as a symbol of mourning for the destruction of the Holy City. This was an impressive way of describing the condition of the country at that time. Everywhere there was desolation and abandonment. Though Jews were ever present, most of them came there to die and be buried in the holy soil rather than cultivate the land and make a place to live. Other countries which had ruled over it had merely added more ruins.

In such vivid pictures he presented his findings in the entire country. He visited every historical place in the Holy Land. He tried to read the history of his people inscribed upon the tomb stones, monuments, and relics along the length and breadth of Palestine.

What would have happened had Dr. Frankl been alive today? Well, he probably would have made another trip to Palestine. This time he would have gone by plane, the journey taking a few hours rather than weeks and months. Proudly, with mingled tears of joy and sorrow, he would certainly observe that prescription he wrote for a Jewish flag, the banner flying above the Hebrew University, the hospital, and the City Hall in Tel Aviv. He would see more than twenty thousand volunteers carrying that banner and marching to fight in the British Eighth Army. Girls dressed in white carrying that banner of white and blue would greet him with flowers as he arrived in the city square. For the poet, the book still holds first place in that land. He would see numerous schools and institutions. He would see blooming gardens and blossoming orange groves covering the valley Jesriel where he saw graves and rock in 1856. He would see on Mount Scopus, not only the university, but also a national library—the greatest in the Near East.

The Jewish Flag

In 1895 Dr. Herzl, the founder of political Zionism, proposed a seven-starred banner for the Jewish flag which was displayed for the first time in Basle, Switzerland, in August 1898. This banner was actually first described by Dr. Frankl. It may be said that the design of the flag was a doctor's prescription. He described the Jewish flag in a poem entitled "Weiss-Blau", published in 1856, which is presented here in the original so there cannot be the slightest distortion which is inevitable in the best translation.

Weiss-Blau

Der Jude kehrt nach Ost den Blick
Und seiner Seele Sorgen;
Er denkt an Seines Reichs Geschick
Und an der Freiheit Morgen.

So, wie ein Herscher, der verbannt
In des Griles Schmerzen,
Sich nach von dem verlornen Land
Der Kőnig fűhlt im Herzen.

Anlegt er, wenn ihn Andacht fűllt,
Die Farben seines Landes;
Da sieht er, beim Gebet verhűllt
Weiss schimmernden Gewandes.

Den Rand des weissen Mantels breit
Durchziehen blaue Streifen
Sowie des Hohenpriesters Kleid
Die blauen Fadenschleifen.

Die Farben sind's des theuern Land's
Weiss-blau sind Juda's Gränzen;
Weiss ist der priesterliche Glanz
Und blau des Himmels Glanzen.

What kind of poem or epic would Frankl have written to day? He probably would have written a new poem and designed a new universal flag, a flag which would symbolize the four freedoms, a banner under which humanity would march to a new day and a new freedom.

483 Beacon Street

Influence of the Vienna School on British Medicine

British Medicine and the Vienna School. Contacts and Parallels. By Max Neuburger, M.D., Ph.D. London: William H. Heinemann, 1943. Pp. 134.

As is well known, Vienna became a center of medical science in the middle of the eighteenth century. The specialties of dermatology, ophthalmology, laryngology and otology originated there, and this attracted physicians from many countries to the Vienna Medical School. Neuburger is the greatest authority on the history of the Vienna School, as for a half century he was intimately associated with this remarkable institution of learning, was one of its builders, and as the versatile historian and philosopher was capable of presenting accurate and complete evaluations of the achievements and characteristics of this remarkable center of medicine. He has published a number of comprehensive articles on this subject which are of great historical interest and value.

It is a fact that the Vienna Medical School has greatly influenced British and American medicine, but a work dealing with these correlations is lacking. With the publication of this volume Neuburger filled this *lacuna* to a certain extent. He presented many interesting facts, illustrating the contacts and correlations of the Vienna and British schools. He shows that as early as 1767 the work of the Viennese physician, J. J. Plenock, was translated into English, and Willan's classification of skin diseases was accepted by the British medical authors. He cites William Mackenzie's statement that clinical instruction in Vienna is better than anywhere else. On the other hand, he presents facts proving the influence of British authors on Vienna medicine; for instance, some of Rokitansky's teachings were anticipated by British pathologists. He points out that England was the first country in which the care of the insane was attempted on a large scale as early as in the middle of the eighteenth century. Harry Thompson's work on urology, published in 1884, was translated in Vienna in 1888.

The material, which is arranged in an excellent manner, is based on the vast knowledge of the author, but it is given on a small scale. However, it is a valuable contribution to medical history, illustrating the international cooperation in the medical world, its ethical traditions and high ideals.

S. R. Kagan

MEDICAL RECORD

A National Review of Medicine and Surgery, Established 1843

FORMERLY KNOWN AS THE MEDICAL JOURNAL AND RECORD

PUBLISHED MONTHLY BY
THE MEDICAL JOURNAL AND RECORD PUB. CO., INC.

Office of Publication: 210 Orchard Street, East Rutherford, N. J.
Editorial and Executive Offices: 215 Fourth Avenue, New York 3, N. Y.

GREGORY STRAGNELL, M.D. - - - - - *Editor*
A. M. MARLATT - - - - - *Assistant Editor*
N. F. HANF - - - - - - *Business Manager*
C. A. McHALE - - - *Advertising Manager*

Subscription Price: Under Domestic Postage, $4 Yearly; Under Foreign Postage, $4.75 Yearly; Single Copies, 40 cents.

Remittance should be made by New York Exchange, post office, or express money order, payable to The Medical Journal and Record Publishing Company, Inc., or by registered mail, as the publishers are not responsible for money sent by unregistered mail. Remittances from Foreign Countries should be made with International Money Orders.

MANUSCRIPTS

All material for publication should be sent to THE EDITOR of the MEDICAL RECORD, 215 Fourth Avenue, New York 3, N. Y.

Exclusive publication: Original articles are accepted with the understanding that they are contributed only to the MEDICAL RECORD.

Preparation: Material must be typewritten and double spaced. Carbon copies or single spaced manuscripts will not be considered.

Changes other than the correction of errors will not be permitted after the article has been set in type, so be sure and write your paper the way you want it printed.

Illustrations: Photographs should be numbered and bear on the back author's name and title of article; top of the picture should be indicated. Glossy prints produce the best half-tones. Drawings and charts for reproduction should be made in black ink.

Bibliographies should follow the style of the Quarterly Cumulative Index Medicus of the American Medical Association, and should give name of author, title of article, name of periodical, with volume, page, month, day of month if weekly, and year.

Manuscripts should carry addresses of authors and should not be rolled.

Reprints are furnished. Prices can be secured after article is in type.

All material published in the MEDICAL RECORD is copyrighted and should not be reproduced without our permission.

DECEMBER 1943

Our Contributors

ARTURO CASTIGLIONI, M.D., New Haven, Conn., was formerly professor of the history of medicine at the University of Padua and a member of the Supreme Council of Health in Rome. At present he is professor of the history of medicine at Yale University School of Medicine. He is also the author of the *History of Medicine*.

* * *

SIR HUMPHRY DAVY ROLLESTON, BART., M.D. (Cantab.), D.Sc. Oxford, is the grandnephew of Sir Humphry Davy. He was formerly president of the Royal College of Physicians and the Royal Society of Medicine. At present he is consulting physician to many London hospitals and emeritus regius professor of physic at the University of Cambridge.

* * *

SOLOMON R. KAGAN, M.D., Roxbury, Mass., was formerly a member of the staff of the Jewish Memorial Hospital, in Roxbury. He is the author of a number of books, including *Jewish Contributions to Medicine in America*, and has written numerous articles on medical, historical, bibliographical and literary subjects, published in the Russian, German, Hebrew, Yiddish, and English languages.

ISAAC A. ABT, M.D., Chicago, Ill., is professor of pediatrics at Northwestern University Medical School, Chicago. He is one of America's leading pediatricians and has made valuable contributions to the literature of pediatrics.

* * *

OSCAR HIRSCH, M.D., Boston, Mass., was formerly associate professor of rhinolaryngology at the University of Vienna, and is at present associate in otolaryngology at the Beth Israel Hospital, Boston.

* * *

CHAUNCEY D. LEAKE, M.S. (in medicine), Galveston, Texas, is a pharmacologist and physiologist. He is at present dean of the University of Texas Medical Branch.

* * *

ABRAHAM LEVINSON, M.D., Chicago, Ill., is assistant professor of pediatrics at Northwestern University Medical School and professor of pediatrics at Cook County Graduate School of Medicine. His chief field of endeavor has been in pediatric neurology, especially the physiology and pathology of the cerebrospinal fluid.

* * *

LINN J. BOYD, M.D., New York, N. Y., is head of the department of medicine, pharmacology and therapeutics, New York Medical College, Flower and Fifth Avenue Hospitals. He is the author of many monographs on historical medicine.

* * *

MAX THOREK, M.D., Chicago, Ill., is surgeon-in-chief to the American Hospital of Chicago. He is a member of the Chicago Historical Society, the De Pau University Art League, and other organizations of a similar nature.

* * *

ALDO MIELI, M.D., Sante Fé, Argentina, is director of the Institute of the History and Philosophy of Science, Universidad Nacional del Litoral, and is perpetual secretary of the International Academy of Historical Sciences.

* * *

WILLIAM R. LE FANU, M.A., London, England, is librarian of the Royal College of Surgeons.

* * *

HYMAN MORRISON, M.D., Boston, Mass., is professor of clinical medicine at Tufts College Medical School and visiting physician to the Beth Israel Hospital, Boston.

* * *

ROBERT ROSENTHAL, M.D., St. Paul, Minn., is an instructor in pediatrics at the University of Minnesota. He was a pupil of Dr. Max Neuburger for many years.

* * *

RICHARD WAGNER, M.D., Boston, Mass., was formerly assistant professor of pediatrics at the University of Vienna, and is at present junior visiting pediatrician to the Beth Israel Hospital, Boston.

* * *

LEO HESS, M.D., Brookline, Mass., was formerly a professor in the University of Vienna. His practice is limited to internal medicine.

* * *

HARRY A. SAVITZ, M.D., Boston, Mass., is an instructor in medicine at Tufts College Medical School and junior visiting physician to the Beth Israel Hospital, Boston.

An Essential Factor in
ECZEMA THERAPY
Achieved by SUPERTAH (NASON'S)

White and Grossman (*Tailby-Nason Log,* Series VIII, No. 2, P. 3) emphasize that the success of a tar ointment in ECZEMA depends upon *continuity* of use for ten days to three weeks or more. Such continuity is hard to enforce with black tar ointment. Smeared on the skin it can look more repulsive than the eczema itself. It has an objectionable odor; stains clothing and linens, and may burn or irritate the skin. It is hard to remove — but must be removed before re-applications.

SUPERTAH (Nason's) overcomes such difficulties. It is WHITE, not black, and free of obnoxious tarry odor. It will not stain or discolor clothing, linen, or the skin. Furthermore, SUPERTAH does not burn, irritate or cause pustulations, and need not be removed before re-applications.

*Swartz & Reilly, *"Diagnosis and Treatment of Skin Diseases"*, p. 66.

At the same time, as evidenced by results secured for hundreds of eczema patients, and clinical reports*, SUPERTAH "has proven as valuable as the black coal tar preparation." A survey of U. S. physicians, also, reveals that 88.1% of those prescribing SUPERTAH found it to produce *"Good Results!"***

***Survey made by independent research organization; details on request.*

18-MONTH OLD BABY WITH MOIST ECZEMA on face, chest, arms and hands. Some few spots were open and weeping. Secondary infection with a mild cellulitis throughout the rash, due to scratching.

SAME CHILD AFTER TWO WEEKS TREATMENT WITH SUPERTAH (applied by the mother liberally morning and night.) The rash practically disappeared in four days, the eruptions in one week.

INDUSTRIAL PHYSICIANS: SUPERTAH has proved especially successful for Industrial Eczemas. As SUPERTAH is pleasant and easy to use, it is particularly valuable where close supervision of the patient is impractical or impossible. Write for physician's sample.

TRADE MARK

SPHINX

SUPERTAH
(NASON'S)

At Leading Prescription Druggists
2-oz. jars (5% & 10% Strengths)

TAILBY-NASON COMPANY
Kendall Square Station, BOSTON 42, MASS.

RELIABLE PHARMACEUTICALS SINCE 1905

(Continued from page 724)

VI

Vienna, June 17, 1926

My dear Doctor Garrison:

Many thanks for your kind letter and for the copy of your nice book, *The Principles of Anatomic Illustration before Vesalius*. I am going to publish a short review in the *Wiener klinische Wochenschrift*. I am happy to hear that you are very well and always working. *All your publications are of greatest interest and importance*. A lot of American physicians have visited my Institute. I am very proud of this success. I hope you will come once to Vienna. At this time I am working on a new book and I shall send a copy to you as soon as possible.

With all good wishes, I am,

Very sincerely yours,
Neuburger

VII Sept. 12, 1927

My dear Colonel Garrison:

A very long time I did not hear from you, but today I have spoken very much of your mastership. Smith Ely Jelliffe visited my Institute this morning and gave me your letter of introduction. It was a great honor and a real pleasure for me to see the greatest neurologist of America. I should be very glad if this celebrated scholar would translate some of my modest historical neurological publications, for instance, the Reil dissertation.

Some weeks ago Colonel Seaman (of Milwaukee) visited my Institute and Victor Robinson has also been here.

Why did you not publish your review of my book, *Die Lehre von der Heilkraft der Nature?* Perhaps it may be published in the *Annals of Medical History* where Packard has published a review of Part II of my *History*. I heard that Professor Welch, the great old man, will come to Europe, is it not so? I like so much my American colleagues and I am always very glad to see some of them.

Very sincerely yours,
Neuburger

What is the matter with the *Index Medicus?* I hope to get it also in the future time.

VIII

Vienna, July 30, 1928

My dear Doctor Garrison:

I hope you are very well. I did not hear anything from you for a long time. Doctor Robinson did not come this year to Europe as I hoped. Please don't forget the edition of my collected papers in English, this publication would be the greatest honor and pleasure for me. I hope you will accelerate this publication in this autumn respecting my 60th birthday (Dec. 8, 1928). With kind regards and cordial greetings.

Very sincerely yours,
Neuburger

IX

Vienna, Jan. 31, 1928

My dear Doctor Garrison:

Did you forget me? Many months ago you wrote me the last letter. How do you do? The standard of life is terrible. When will the 3rd edition of your *History of Medicine* be published? I am expecting it with the greatest impatience. I should like to write some articles in an English or American periodical. Can you recommend me to Hoeber or another publisher?

With best wishes, Sincerely yours,
Neuburger

X

Vienna, July 4, 1931

My dear Doctor Garrison:

Many thanks for your kind letter of June 17. You are a great savant; every word shows that you understand much more than other colleagues.

I am indeed weary of life. I lost my darling beloved wife, who was my little world. I am a dead soul. I hear that you will be the librarian of the Welch Medical Library. You should be the chief, for you have done in this field more than all American colleagues. Please send me your catalogue

(Continued on page 758)

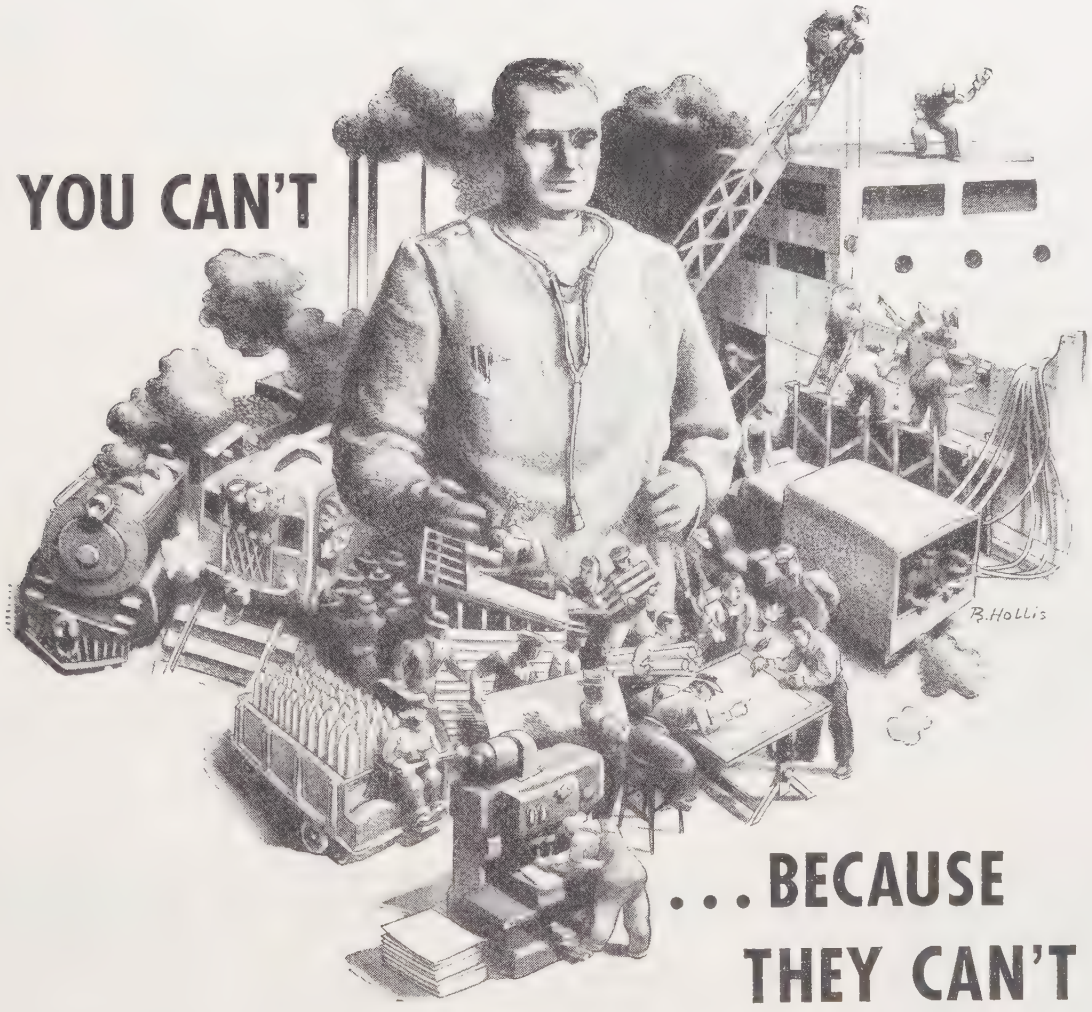
PASADYNE

affords decided relief for headaches of nervous origin occurring in those of highly neurotic tendency, or subject to hysteria or epilepsy.

PASADYNE ACTS PROMPTLY AND WITHOUT UNDESIRABLE BY-EFFECTS.

JOHN B. DANIEL, Inc. Atlanta, Georgia

YOU CAN'T



. . . BECAUSE THEY CAN'T

Often, today, the physician can't get his head-cold patients to go to bed—because they can't, or feel they can't, absent themselves from essential war work. But he *can* do much to help these patients. He can give them marked comfort and relief by prescribing BENZEDRINE INHALER.

Benzedrine Inhaler is so outstandingly convenient that the physician may overlook the fact that it is, first and foremost, a highly effective therapeutic agent.

BENZEDRINE INHALER

A VOLATILE VASOCONSTRICTOR

In a Modern Plastic Tube

Each tube is packed with racemic amphetamine, 250 mg.; oil of lavender, 75 mg.; menthol, 12.5 mg.
Benzedrine is S.K.F.'s trademark, Reg. U. S. Pat. Off.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

Fatigue

Fatigue is frequently the price exacted today for top-speed production which is winning this war. The use of qualified dietary supplements helps combat fatigue and re-establish maximum efficiency.

Send for the "Vitamineral Manual"

VITAMINERALS CO.

3636 BEVERLY BLVD. • LOS ANGELES 4, CALIF.

of the medical incunabula in the Surgeon General's Library.

With warm regards and cordial greetings.

Very sincerely yours,
Neuburger

Last summer I had the great pleasure to see you in my little Institute. I was so happy that summer. Now I am living misery.

Letters Addressed to Dr. Solomon R. Kagan

I

Wien, 2, April, 1937

Dear Doctor Kagan:

I received your letter concerning your forthcoming Biography of Dr. F. H. Garrison. In accordance with your request I am sending you my tribute to this great American medical historian for insertion in your book. I am also sending you one of Dr. Garrison's letters written to me in 1930.[1]

Sincerely yours,
Neuburger

Dr. Neuberger's Tribute to Dr. Garrison[1]

Professor Neuburger's tribute to Garrison was translated by me from the German into English and inserted in my *Life and Letters of Fielding H. Garrison*, Boston, 1938, on p. 71; Garrison's letter to Neuburger was inserted in same book on p. 206. The following is Dr. Neuburger's tribute to Dr. Garrison:

Fielding H. Garrison, unstreitig der grösste Medikohistoriker Amerikas, ein Mann von hoher Kultur, vielseitigem Wissen glänzender schriftstellerischer Begabung hat sein Fach durch zahlreiche Monographien gefordert und den starksten Impuls zur Pflege der Medizingeschichte erteilt. Sein Meisterwerk, *An Introduction to the History of Medicine* erlangte die weiteste Verbreitung und erlebe, wie kaum ein anderes, wiederholte Neuauflagen, immer wieder verbessert und erweitert, in seinem reichen illustrativen Material vervollkommnet. In lebensvoller Darstellung, übersichtlich, klar und dabei gewissenhaft den gewaltigen Stoff verarbeitend, bietet es nicht nur eine ausserordentlich belehrende, sondern auch eine Garrison, wie kein anderer Medizinhistoriker von ihm auch die neueste Phase der Medizin zum Gegenstand seiner Betrachtung gemacht und gerade in diesem Schluss kapitel sein selbständiges freimütiges Urteil wie seine ganz seltene Beherrschung der Materie erwiesen hat.

Neuburger

(*Continued on page 760*)

Through The Menstrual Years of Life-

THE frequency with which the menstrual life of so many women is marred by functional aberrations that pass the borderline of physiologic limits, emphasizes the importance of an effective tonic and regulator in the practicing physician's armamentarium.

In Ergoapiol (Smith), the action of *all* the alkaloids of ergot (prepared by hydro-alcoholic extraction) is synergetically enhanced by the presence of apiol, oil of savin, and aloin. Its sustained tonic action on the uterus provides welcome relief by helping to induce local hyperemia, stimulate smooth, rhythmic uterine contractions, and serve as a potent hemostatic agent to control excessive bleeding.

May we send you a copy of the comprehensive booklet "The Symptomatic Treatment of Menstrual Irregularities."

MARTIN H. SMITH COMPANY
150 LAFAYETTE STREET, NEW YORK

INDICATIONS
Amenorrhea, dysmenorrhea, menorrhagia, metrorrhagia, in obstetrics.

ERGOAPIOL

••THE PREFERRED UTERINE TONIC••

DOSAGE
1-2 cap. 3-4 times daily.

SUPPLIED
In ethical pkgs. of 20 cap.

CONVALESCENTS IN WARTIME

Easily digested plain Knox Gelatine adds variety and protein food value to convalescents' diets.

Clip this coupon now and mail for free helpful booklet.

KNOX GELATINE

U. S. P.

IS PLAIN, UNFLAVORED GELATINE...
ALL PROTEIN, NO SUGAR

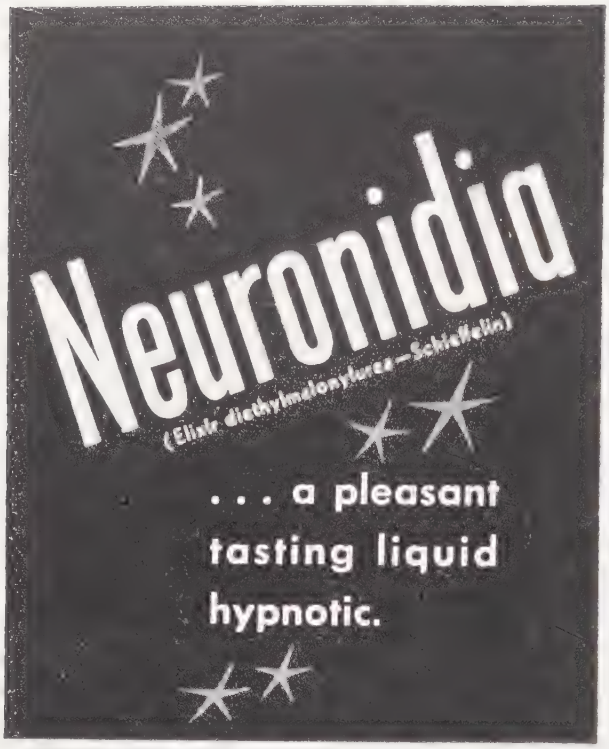
Knox Gelatine for Protein Supplementation and Variety is discussed in a free booklet, "Feeding Sick Patients." Address Knox Gelatine, Johnstown, N. Y., Dept. 456.

Name .....

Address .....

City ..... State .....

No. of copies desired ☐



Your patients will appreciate the agreeable taste of Neuronidia, an elixir of diethylmalonylurea.

Due to its liquid form, Neuronidia is readily absorbed and therefore acts promptly. It induces a sound sleep of adequate duration, closely resembling the normal.

On awakening the following morning the patient is fully refreshed, both in mind and body.

Hypnotic dose: One dessertspoonful upon retiring.

Sedative dose: One teaspoonful two or three times daily.

Literature and sample on request.

Schieffelin & Co.
20 Cooper Square New York, N. Y.
Pharmaceutical and Research Laboratories

II Vienna, October 1938

My dear Doctor Kagan:

I should be very glad to have a copy of the Garrison biography you have published some months ago. Kindly you have promised to send me this important work, which I should like to study with great interest.

With cordial greetings,

Sincerely yours,
Dr. Neuburger

III

Vienna, Nov. 30, 1938

My dear Doctor Kagan

I received with greatest pleasure your new work, *Life and Letters of Fielding H. Garrison,* you have sent me. Many thanks for this splendid gift. I am happy to have the biography of a charming and ingenious personality . . .

I am living in very hard times and it seems that my friends in America have forgotten me.

With cordial regards,

Sincerely yours,
Dr. Neuburger

IV

Wellcome Historical Medical Museum
London, December 15, 1941

Dear Doctor Kagan:

I received your second letter, dated Dec. 10th this morning, but I have already answered all your questions in air mail letter after receiving your first letter sent c/o Sir Humphry Rolleston. I hope that you got his letter meanwhile.

I need not say that I should like to have a copy of your new book, *Leaders of Medicine.* With great pleasure I heard that a second edition of your *Life of F. H. Garrison* will appear in a short time . . .

With regard to the prepared publication entitled *Contribution of Jews to Medicine,* I am glad to hear that my dear friend Rosenthal has sent you a reprint from my lecture delivered at the Congress at Tel Aviv in 1936. The list of names of Jewish Physicians is almost complete concerning

(*Continued on page 762*)

HARROWER ENDOCRINES

THE HARROWER LABORATORY GLENDALE CALIFORNIA At Your Service

ENDOTHYRIN

Thyroid extract
(thyroglobulin)

Dependable potency
(iodine 0.62%)

Lower toxicity
(better tolerated--less heart-stimulating effects)

Samples and literature on request

The HARROWER LABORATORY, Inc.
GLENDALE, CALIFORNIA
NEW YORK CHICAGO DALLAS

KEEPING HIM ON THE JOB —

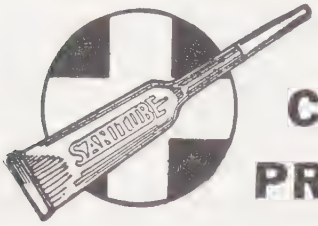
Hemorrhoids rank comparatively high among the causes of lost "man hours." Today, more than ever, this should be a matter of concern to physicians.

Whenever non-surgical treatment is indicated, Anusol may be used with the knowledge that it will afford the kind of relief likely to keep the patient on his job. By their emollient properties Anusol Suppositories reduce inflammation, alleviate pain and check the bleeding. They contain no narcotic or anesthetic to give the patient a false sense of security.

We suggest that you give Anusol a trial in one of your ambulant cases; we shall be glad to send you a supply for that purpose.

SCHERING & GLATZ, INC.
113 West 18th Street, New York City

ANUSOL HEMORRHOIDAL SUPPOSITORIES



COMPLETE PROTECTION

Against Gonorrhea and Syphilis

Sanitubes, the original Navy prophylactic tubes, are not sold in Army post exchanges.

Every drug store a prophylactic station!

A single tube only—half the ointment inside the urethra to prevent gonorrhea, half applied outside to protect against syphilis.

No "two tubes" to get confused, no color to stain fingers and clothing, no odor, no irritation.

As to comparative efficiency, let us send you laboratory findings.

THE SANITUBE CO., NEWPORT, R. I.

The SAFE Hypotensive for Long-Continued Use

ALLIMIN acts as a peripheral vasodilator. Clinical tests have demonstrated that ALLIMIN lowers blood pressure in many cases, often very substantially, and relieves hypertensive headaches and dizziness. Administration may be maintained without fear of undesirable side-effects or untoward after-effects.

ALLIMIN tablets are enteric coated, tasteless and odorless. Each tablet contains 4.75 gr. dehydrated garlic concentrate and 2.37 gr. dehydrated parsley concentrate. For professional sample and literature sign and mail the coupon.

.....

VAN PATTEN PHARMACEUTICAL CO.
500 North Dearborn, Chicago 10 **M.R. 12**

Gentlemen: Please send professional sample of ALLIMIN with covering literature.

Dr. _____

Address _____

Town _____ State _____

Austria and Germany, but not concerning other countries, particularly Poland, Italy, France, Great Britain. *All those physicians* whom you will find mentioned in my article—a pity that it was translated only into French (in *Ose*) but not into English—have been of Jewish origin by race; not a few among them indeed were baptized Jews. You may be sure that neither Hebra nor Semmelweis, nor Weichselbaum (mentioned erroneously in the "Jewish Encyclopedia") were Jews. The son-in-law and successor of Hebra, the famous dermatologist in Vienna, Kaposi, (formerly Kohn) was a baptized Jew. Dr. Robinson is quite right concerning Hebra.

Please write to Dr. Robinson that I should like to get some lines, hoping that he is well, but for a very long time I didn't hear anything from him. He was always very kind. I never forgot it. I published a lot of articles in his *Medical Life*. Concerning Freud, who explained, as you know in one of his writings, Religion as a Neurosis, I didn't read the last work dealing with Moses, but I have seen some reviews in Britain. Therein it has been said, that this writing did not at all enlarge his fame, indeed, it might more diminish his enormous reputation. Enclosed I am sending *my photograph* (performed at my 73rd birthday). With kind regards and best wishes

Yours sincerely,
Neuburger

V

London, 23. Dec. 1941

Dear Doctor Kagan:

Sir Humphry Rolleston forwarded your letter of Oct. 23d to me. I thank you very much for it. Please send me as soon as possible your new book entitled *Leaders of Medicine*. I should like to read it.

Before my departure from Vienna (August 1939) I received the first edition of your work, *Life and Letters of F. H. Garrison*, and was very fond of it. I am glad to hear that you are going to publish a second edition, revised and enlarged...

I had to leave at Vienna my property, my library, all my scientific material and arrived in London 26th August 1939, penniless and without my luggage. Owing to the British hospitality, I have been appointed at the Wellcome Historical Medical Museum, acting in advisory capacity in regard to all sections.

Concerning your book, *Contributions of Jews to Medicine*, I am glad to hear that you will quote some of my publications, particularly the lecture I delivered at the World Congress of the Jewish Physicians in April 1936 at Tel Aviv, entitled "Die Stellung der Juden in der Geschichte de Medizin". This lecture delivered in German has been translated into French (in *Ose*), but not into English...

Neither Semmelweis nor Hebra was of Jewish race. It is a pity that in the Jewish Encyclopedia and in other works are so many mistakes in this respect; for instance, the Vienna pathologist, Weichselbaum, a true Aryan, appears in the Encyclopedia as Jew. If you want any information, please write me. Under the present conditions, you will understand, I have only one recent photograph and not at all a good one, but as you need it for insertion in your book, *The Medical World—Modern Period"*, I am sending it to you.

With kind regards and cordial greetings,

Yours sincerely,
Neuburger

(*Continued on page 764*)

EFFECTIVE THERAPY
IN
Otitis Media
Requires Analgesia-Bacteriostasis, and Dehydration of the Tissues.
Auralgan
The Doho Chemical Corp., New York-Montreal-London

MOST URINARY TRACT INFECTIONS YIELD TO

SULAMYD

SULAMYD (Sulfacetimide-Schering) is "almost a specific" in the *treatment* of urinary tract infections — especially those due to B. coli, the commonest invading organism.

SULAMYD is effective in small dosage; is better tolerated; and is convenient to use. Recent evidence indicates SULAMYD is of value for *prophylaxis* pre- and postoperatively in genitourinary surgery; and in urinary tract instrumentation.

SULAMYD (Sulfacetimide-Schering) is available in bottles of 100 and 1000 tablets, 0.5 Gm. each.

SCHERING CORPORATION SCHERING BLOOMFIELD • NEW JERSEY

VI

London, Jan. 25, 1942

Dear Doctor Kagan:

Your suggestion to translate into Hebrew my article on the Medical Lore of the Bible is a good one. But I think the booklet, *Die Medizin im Josephus Flavius,* which was published in German in 1919 would deserve much more to be translated in English and Hebrew. I would be glad to see my book on Josephus Flavius translated into English; no other author wrote on this subject before or after me; it is indeed a unique work.

As you and Dr. L. B. are considering the translation of several sections of Julius Preuss' book, I would say it is difficult to advise which of the many sections of this fundamental classic book should be chosen, all are of greatest value, because Preuss was not only a profound Hebrew scholar but also an excellent physician and combined his knowledge with criticism. Almost all other authors on this subject have been lacking of criticism based on modern scientific medicine.

I sent your letter to Mr. Le Fanu, librarian of the Royal College of Surgeons, with the copies of letters concerning the late Sir D'Arcy Powers, and the letter addressed to his son.

With good wishes and best thanks,

Yours sincerely,
Neuburger

P. S.: Garrison-Robinson's edition of twelve of my essays in the *History of Medicine* was published in 1930. The names of the translators are mentioned in the content of the book. I think that members of the staff of the Surgeon General's Library (Washington, D. C.) were the translators. The article I "The Medical Lore of the Bible" of the Essays is the translation of my paper that I published on this subject in 1920, "Die Medizin in der Bibel". The article VI, "The Oldest Fundamental Investigations of the Origin of Dropsy" of the Essays is a translation of my paper "Anfänge der Experimental pathologie", published in 1898.

VII

London, 9, February 1942

Dear Doctor Kagan:

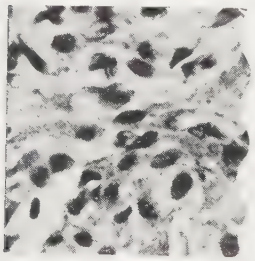
Many thanks for the copy of your work, *Leaders of Medicine.* I am reading it with great interest and pleasure. I will keep it always on my shelves owing to its many informations.

As I wrote you, I should like to hear concerning my friend, Dr. Victor Robinson. In his *Medical Life* a lot of my papers were published many years ago . . .

Yours very sincerely,
Neuburger

P. S.: I graduated in Vienna on 10th June, 1893, and have been Dr. med on 10th June 1943 for fifty years. I n normal times one gets a renewed (golden framed) Diploma from the medical faculty of Vienna, but under present conditions—alas.

[The letters which Dr. Neuburger addressed to Dr. Robert Rosenthal, of St. Paul, Minn., and other letters addressed to Dr. Kagan will appear in a later issue of the Medical Record. Space limitations prevented their publication in this special number.]



SILICA IN THE INJECTION TREATMENT OF HERNIA

Permanent fibrosis and rapid results accompany the fibrogenetic activity of Silica as incorporated in Alparene No. 2 (SiO_2—CaF_2 in suspension). A unique chemical combination of unusual effectiveness. Three years of extensive clinical trial. NON-TOXIC, painless.

← Human section showing fibrosis nine months after injection.

Write for Literature

Dequin Physicians Products Co., 75 E. Wacker Drive, Chicago, 1, Ill.

DEFINITE TREATMENT
FIXED CHARGES
MINIMUM
HOSPITALIZATION

•

AUTHORITATIVE
INFORMATION
AND HOSPITAL
LITERATURE
ON REQUEST

THE CHAS. B. TOWNS HOSPITAL

41 SUCCESSFUL YEARS

TREATING DRUG AND ALCOHOL CASES

EXCLUSIVELY

•

293 Central Park West, New York, N. Y.
SChuyler 4-0770

GLYKERON . . . a double-action antitussive

because it is

1 MILDLY SEDATIVE

GLYKERON
NARCOTIC
ALCOHOL 3% PER CENT
EACH FLUID OUNCE CONTAINS 1 GRAIN CODEINE PHOSPHATE (OPIUM DERIVATIVE)
MARTIN H. SMITH CO
4 FLU D OUNCES

2 STRONGLY EXPECTORANT

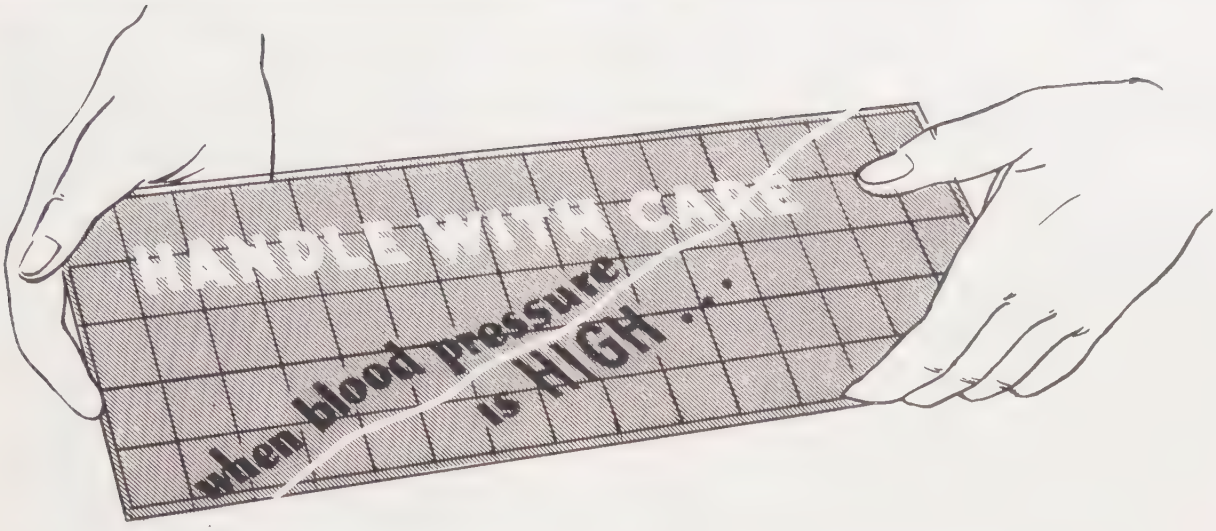
• It aids in breaking the vicious circle of coughs that are uselessly irritating or unproductive.

Dosage: For adults 1–2 teaspoonfuls every 2–3 hours or longer; children in proportion.

Supplied: In 4 oz., 16 oz., and half-gallon bottles.

May we send you valuable brochure?

MARTIN H. SMITH COMPANY, 150 LAFAYETTE STREET, NEW YORK, N. Y.



Patients with high blood pressure must be handled with care if the dangerous sequelae of hypertension are to be avoided. The administration of a safe, effective hypotensive is definitely indicated to bring blood pressure down to safer levels.

HEPVISC is such a hypotensive. Clinical studies have shown that, unlike drugs of the nitrite group which lower blood pressure with jarring suddenness, HEPVISC produces a smooth and gentle, yet prompt and effective descent in sphygmomanometer readings. Moreover, HEPVISC produces a sustained effect, one that persists throughout the period of its use.

Especially pertinent is the fact that in over 80% of cases HEPVISC relieves the distressing subjective symptoms of headache, dizziness and tinnitus. Hence HEPVISC is a prescription favorite and patients cooperate more fully when placed on this medication.

Each HEPVISC Tablet contains a synergistic combination of 20 mg. Viscum album, 60 mg. desiccated hepatic substance and 60 mg. insulin-free pancreatic substance.

The average dose is 1 to 2 HEPVISC Tablets three times daily before meals, in courses lasting two to three weeks with an interval of one week between courses.

Available in bottles of 50, 500 and 1000 tablets.

Liberal samples to physicians on request.

HEPVISC

AN EFFECTIVE HYPOTENSIVE

ANGLO-FRENCH LABORATORIES, INC.

75 VARICK STREET, NEW YORK 13, N. Y.

In Whooping Cough

THOUSANDS OF DOCTORS PRESCRIBE

ELIXIR BROMAURATE

WITH EXCELLENT THERAPEUTIC RESULTS

THERAPEUTIC EFFECT:—Elixir Bromaurate inhibits the coughing center, relieves the spasmodic attacks and cuts short the period of the illness.

ELIXIR BROMAURATE is also valuable in other PERSISTENT COUGHS and in BRONCHITIS and BRONCHIAL ASTHMA.

In four-ounce original bottles

The dosage for children is a teaspoonful every 3 to 4 hours. Adult dosage two teaspoonsful.

DOCTOR

A BOOKLET on "WHOOPING COUGH AND ITS TREATMENT" WHICH IS WORTHY OF A PLACE IN YOUR LIBRARY WILL BE GLADLY SENT TO YOU. DROP US A LINE FOR A COPY.

GOLD PHARMACAL CO., New York

"Pure Water Like Pure Air Is Vital To Health"

ELECTRIC WATER COOLERS AT SMALL MONTHLY RENTALS

•

ALSO ENJOY WHOLESOME GREAT BEAR BEVERAGES
Ginger Ale—Club Soda—Root Beer

•

GREAT BEAR SPRING COMPANY
New York—Brooklyn—Albany—Buffalo
Newark and the Oranges—Jersey City
Philadelphia

•

Consult Your Telephone Directory For Office Nearest You.

Free Home or Office Delivery in Above Areas.

DR. BARNES SANITARIUM

STAMFORD, CONNECTICUT

For treatment of Nervous and Mental Disorders, Alcoholism and Convalescents. Carefully supervised Occupational Therapy. Facilities for Shock Therapy. Accessible location in tranquil, beautiful hill country. Separate buildings.

Telephone 4-1143

F. H. BARNES, M.D., Med. Supt.

"INTERPINES"

GOSHEN, N. Y.

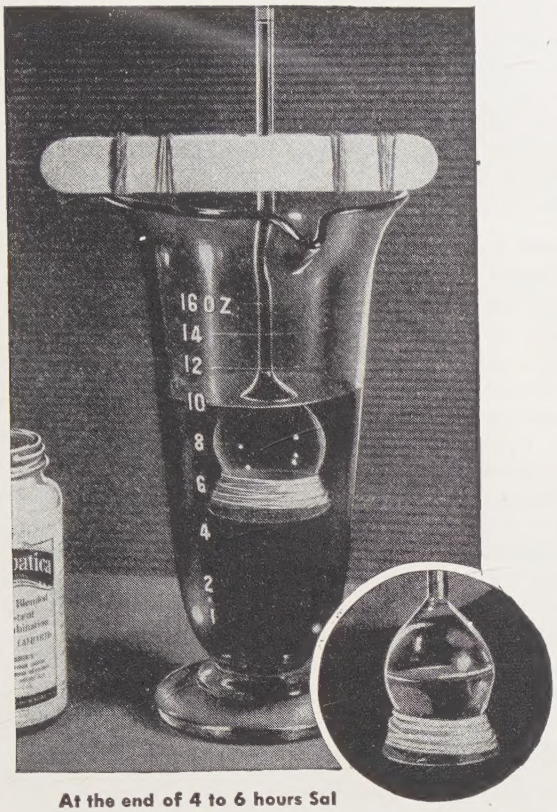
Phone 117

ETHICAL—RELIABLE—SCIENTIFIC

Disorders of the Nervous System

BEAUTIFUL—QUIET—HOMELIKE—WRITE FOR BOOKLET

FREDERICK W. SEWARD, M.D., Director FREDERICK T. SEWARD, M.D., Resident Physician CLARENCE A. POTTER, M.D., Resident Physician



At the end of 4 to 6 hours Sal Hepatica solution mounted almost to top of thistle tube from low level (see inset).

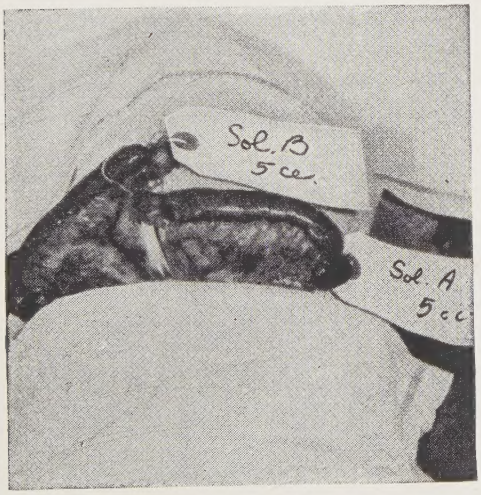
In Vitro and in Vivo

SAL HEPATICA CREATES LIQUID BULK

IN glass and in the ileal loop of a laboratory animal Sal Hepatica demonstrates the reason it has become the efficient saline laxative recommended by medical men everywhere—the ability to create *liquid bulk.*

Sal Hepatica in laxative solution was placed in a dog's isolated ileal loop. An hour later examination revealed that the solution had gained 34 per cent in volume. A laxative solution of Sal Hepatica placed in a thistle tube sealed tight with a semi-permeable membrane and suspended in Ringer's solution gained approximately 34 per cent in volume within two hours —and about 100 per cent in 6 to 12 hours.

When gentle yet thorough laxative action is needed for patients, physicians everywhere naturally turn to Sal Hepatica.



Sal Hepatica in laxative solution increased 34 per cent within one hour in an isolated loop of a dog's ileum.

SAL HEPATICA

SUPPLIES LIQUID BULK TO FLUSH THE INTESTINAL TRACT

Bristol-Myers Company, 19-*JJ West* 50*th St., New York, N. Y.*

Rehabilitation

The importance of immediate steps for organized rehabilitation work is stressed in Australia. John Bostock (*Med. Jour. Australia,* July 10, 1943) underlines the error in the "after the war" approach, as though a hair line existed between peace and war. For many wounded the war has ended. He feels rehabilitation work and planning should have man power priority, and urges adequate compensation to enlist the best men for this work. He also stresses the need for more planned cooperation between civilians and government departments. An effective rehabilitation program should be functioning now to determine sound future practice on the basis of the valuable experience available.

Increase in Reported Cases of Venereal Disease

An increase of twenty-one percent in the number of persons with syphilis reported as seeking treatment in the fiscal year 1943 as compared with 1942, is indicated in reports of State and Territorial health departments, according to an estimate for the whole of fiscal 1943 based upon the first six months of the year. Both doctors and clinics participated in the reported increase; physicians reported 212,000 cases 36,000 more than in 1941, last peacetime year), while clinics reported about 378,000 (60,000 more than in 1941). A considerable part of the increase in reported cases arises from cases uncovered and brought to treatment as a result of routine blood tests made by Selective Service and as a part of premarital and prenatal examinations. Serological tests have increased by fifty-three percent as a result of these mass testing programs.

Reports of the States on gonorrhea indicate that almost three hundred thousand new cases reported for the fiscal year 1943, an increase of 28.3 percent over the fiscal year 1942.

Endocrine Preparations Nomenclature

The Council on Pharmacy and Chemistry has authorized publication of a list of proprietary and nonproprietary endocrine preparations (*J.A.M.A.*, Oct. 9, 1943) to furnish physicians with the names and synonyms of endocrine preparations shown to have therapeutic effects.

Use

COLLENE

REG. U. S. PAT. OFF.

Wherever silver is indicated

You and your patients will equally appreciate the cleanliness and effectiveness of Collene, the original clean and stable silver solution—Always ready for use.

Write us for Samples and Literature

COLLENE LABORATORIES, Inc.
77 White Street, New York, N. Y.

BURNHAM SOLUBLE IODINE

Accurate dosage for thyroid effects. One drop supplies 1 mg. iodine. Endocrine protection in critical life periods.

Write for suggested dosage and sample

Burnham Soluble Iodine Co., Auburndale, Boston, Mass.

SISTER KENNY'S New Book on INFANTILE PARALYSIS

In collaboration with Dr. Jno. F. Pole (Univ. Minn.) Endorsed by the American Orthopedic Ass'n, and by the Nat. Foundation for Infantile Paralysis.

Only authoritative work on the Kenny method. Richly illustrated. 368 pages.

Order it today. Price $5.00

GROVER'S HIGH FREQUENCY

To Practice PHYSICAL THERAPY Successfully you must understand the fundamentals and physics of electricity. Both are taught in a comprehensive manner in this work.

***New Chapters* added in this edition, on SHORT WAVE THERAPY and HYPERPYREXIA. A book of experiences gleaned from thirty years practice. PRICE $3.50.**

Including a copy of Grover's Unique Book on Blood Pressure, with Diagnostic Chart.

WAR MEDICINE

A new book, covering all phases of *War Surgery, Aviation, Psychiatry,* and *Medicine,* by 50 experts. No work like it. Price, $7.50.

We supply any book or magazine.

TIMELY NEW BOOKS

PICTORIAL HAND BOOK OF FRACTURE TREATMENT (New), *by Edw. L. Compere.* Most practical work on fractures in a decade; the latest methods illustrated and described; technic of skeletal traction and internal fixation. $4.25.

UROLOGY IN GENERAL PRACTICE, *by Ockerblad* and *Carlson* (Univ. Kas.) A mentor for practitioners who now must be able to handle the ordinary run of G-U cases; illustrations and technics by masters of the arts. $4.00.

BED MANNERS, (New) Bed-iquette for the married. An intimate and confidential resume of bed-going and bed-doings; humorous and instructive. Illustrated. $2.00.

ENDOSCOPIC PROSTATIC SURGERY, *by Roger W. Barnes.* First illustrated technic of Transurethral method. $6.00.

NERVOUSNESS, INDIGESTION AND PAIN, *by Walter C. Alvarez.* A practical book for every day. $5.00.

PSYCHOTHERAPY IN MEDICAL PRACTICE, *by Maurice Levine.* Expert methods of handling "difficult" patients, by a master of the science. $3.50.

COCOANUT GROVE BURNS, a thrilling recital of the Boston fire tragedy, with detailed description of the treatment, in all its phases. Richly illustrated. $4.00.

ESSENTIALS OF SYPHILOLOGY, *by Rudolph H. Kampmeier.* All phases of treatment employed at Vanderbilt University Hospital. Illustrated. $5.00.

ESSENTIALS OF PROCTOLOGY, *by Harry E. Bacon.* A concise, up-to-date treatise, based on a wide experience. $3.50.

MULLEN'S HAND BOOK OF TREATMENT-MENT, arranged in alphabetical order for quick answers, 2000 formulae. $4.50.

REHABILITATION OF THE WAR INJURED

Covers the entire field of Reconstructive and Plastic Surgery, Orthopedics, Physical Therapy, Occupational and Re-educational methods. By American and British Specialists. A monumental volume. Illustrated. Send for prospectus. $10.00.

BIRTH CONTROL. Explains Ogino-Knaus technic. No mechanical or antiseptic interference. **$2.00** postpaid, including timing chart.

SCIENTIFIC INTESTINAL IRRIGATION

by J. E. G. WADDINGTON, M.D.

An authentic record in print and picture of everything that colonic irrigation means to forward-looking medicine. Order today. Price $5.00.

PHYSICAL THERAPY

By J. E. G. Waddington, M.D., based upon 25 years experience as practitioner, author and teacher.

Last word on the application of the Short and Ultra-Short Wave Therapy. Diathermy, Electro-Diagnosis, Electro-Surgery, Galvanic and Sinusoidal Currents, and Many Other Modalities. Price, $5.50.

"Archives of Physical Therapy" **$5.00** *the year, (Monthly)*

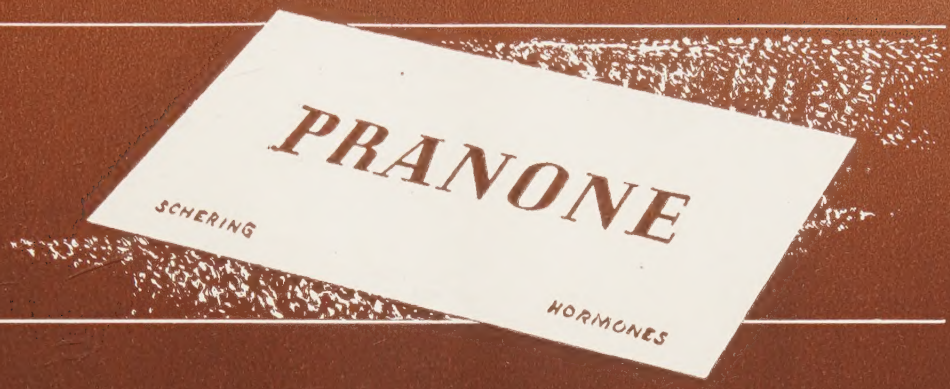
Publishes all papers read at the Congress of Physical Therapy.

Send check with order and books will be prepaid. Or will ship C.O.D. plus return charges.

THE ELECTRON PRESS 200 B. M. Ass'n Building, Kansas City 8, Mo.

Orders from Pacific Coast filled by Fassett Medical Book Agency, Carolands, Burlingame, California.

The name to remember!



PRANONE TABLETS (anhydrohydroxy-progesterone)... Orally active progestin providing rational and highly effective therapy in corpus luteum hormone deficiency states.

FUNCTIONAL DYSMENORRHEA in women with normal uterine development responds decisively to physiological therapy with **PRANONE**.

GRATIFYING RELIEF (through uterine relaxation) may usually be obtained with one or two tablets taken daily for 8 to 10 days preceding menses.

PRANONE Tablets of 5 mg. and 10 mg. in boxes of 20, 40, 100 and 250.

SCHERING CORPORATION · BLOOMFIELD · N.J.

SCHERING

Remember too — BUY WAR BONDS TODAY

PICTURE OF A MAN WITH A Sore Throat

ACCURATE forecasts predict a tremendous increase in sore throats but they will be the kind that no medication will help. Commando victims will seldom recover.

However, there are thousands of sore throats that can be helped. NUPORALS* *contain the excellent anesthetic,* NUPERCAINE* *which affords prolonged relief from local distress. The lozenge dissolves readily in the mouth and the anesthesia develops quickly.*

Many physicians use *NUPORALS* before the passage of a stomach tube, thereby controlling the gag reflex. Others use them to alleviate pain from trauma, either surgical or dentural.

NUPORALS

BOXES OF 15 BOTTLES OF 100

*Trade Marks Reg. U. S. Pat. Off.

CIBA *Pharmaceutical Products, Inc.*

SUMMIT, NEW JERSEY